THE FACTORS INFLUENCING POVERTY RATE IN EAST JAVA PROVINCE

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MINOR THESIS

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ABSTRACT

The development is the most important thing of a country to achieve the welfare. The welfare can be achieved if there is a decrease in poverty. The objective of this research is to observe and analyze the factors influencing poverty rate. The dependent variable of this research is the percentage of poverty rate and the independent variable are economic growth, minimum wage, and unemployment rate. Data that obtained in this research is secondary data from Central Statistical Agency in terms of panel data covering 38 districts / cities in East Java province of 2006-2015. The data analysis method is using the panel data analysis with Fixed Effect Model Approach. According to this study, the result stated that the economic growth and minimum wage are significant and has a negative effect to poverty rate, and also unemployment are not significant and have negative influence to poverty rate.

Keyword: Poverty, Economic Growth, Minimum Wage, Unemployment

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ABSTRAK

Pembangunan merupakan hal yang sangat penting dalam suatu Negara untuk mencapai kesejahteraan. Kesejahteraan dapat dicapai jika terjadi penurunan pada tingkat kemiskinan. Tujuan penelitian ini adalah untuk meneliti dan menganalisis factor yang mempengaruhi tingkat kemiskinan. Variabel dependen yang digunakan dalam penelitian ini adalah persentase tingkat kemiskinan dan independen variabel berupa pertumbuhan ekonomi, upah minimum, dan tingkat pengangguran. Data yang digunakan dalam penelitian ini adalah data sekunder yang berasal dari Badan Pusat Statistk dalam bentuk data panel mencakup 38 kabupaten / kota di provinsi Jawa Timur tahun 2006-2015. Metode analisis data yang digunakan adalah analisis panel data melaui pendekatan model Fixed Effect. Berdasarkan hasil penelitian, pertumbuhan ekonomi dan upah minimum secara signifikan berpengaruh negatif terhadap tingkat kemiskinan dan pengangguran secara tidak signifikan berpengaruh negatif terhadap tingkat kemiskinan.

Kata Kunci: Kemiskinan, Pertumbuhan Ekonomi, Upah Minimum, Pengangguran

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CHAPTER I

INTRODUCTION

1.1 Background

The aim of National Development in Indonesia is to accelerate the general welfare which for creating a sufficient condition and fulfillment of the material, spiritual, and social needs of the people in a country (BPS, 2017). This concept is in accordance with the objectives Republic of Indonesia that listed in the preamble of 1945 Constitution (2002), namely to protect the entire Indonesian blood sphere, promote people common prosperity, educate the nation and participate in the world based on independence, eternal peace and social justice. Promoting the improvement of general welfare can be implemented if the whole people are prosperous and free from poverty, then the people are able to develop themselves and live properly. Due to the fulfillment of people's need, the social and economic functions of the society will be properly carried out. The achievements of the general welfare level for every people can be illustrated based on the level of poverty. Research indicated that poverty level in Indonesia has a negative relationship with the general welfare because the high level of welfare led to the low level of poverty. The main indicator in successful National Development is the declining number of poor people in Indonesia (Jundi, 2014).

Poverty still becomes the fundamental economic problem of every country on this world, especially for developing countries such as Indonesia. Poverty rate in Indonesia is still classified as high compared to other developing country. Thus, poverty problem is the one of the main concern of the Indonesian Government since it covers a complex and multidimensional issues related to social, economic, cultural, and other aspects which led to be a phenomenal problem in various part of the world, especially in Indonesia which categorized as

a developing countries. Therefore, Indonesian President through the Presidential Communication team (2016), stated that an effort of poverty alleviation should be done comprehensively and covers all aspects of community life, and implemented in an integrated manner. The poverty issues in developing countries as in Indonesia is very complicated, although some countries have successfully implemented their economic development by increasing the production and national income levels, however there still an inequality in income distribution between the high and low level of income people, so the number of relative poverty rate is increase especially in urban and rural area.

Poverty is a complex problem that is no longer referred as the economic incapacity, but also the failure to fulfill the basic rights and the difference in the treatment of a person or group of in standard living. Commonly, basic rights include the fulfillment of food, health, education, employment, housing, clean water, defense, natural resources, environment, security from violence and the right to participate in socio-political life. The term of poverty arises when a people or group is not able to meet the economic prosperity level considered as a minimum need of a certain standard of living. According to Nasikun (2001), Poverty means a lack of money and goods to ensure the survival. In a wide sense, poverty is an integrated concept that has five dimensions, which are: a) proper, b) powerless, c) state of emergency, d) dependence, e) isolation both geographically and sociologically (Suryawati, 2005). The Central Statistical agency (2018), define poverty from the perspective of basic needs, that poverty is a condition that is below the minimum standard value of need. Some people said to be poor if their income is below the poverty line.

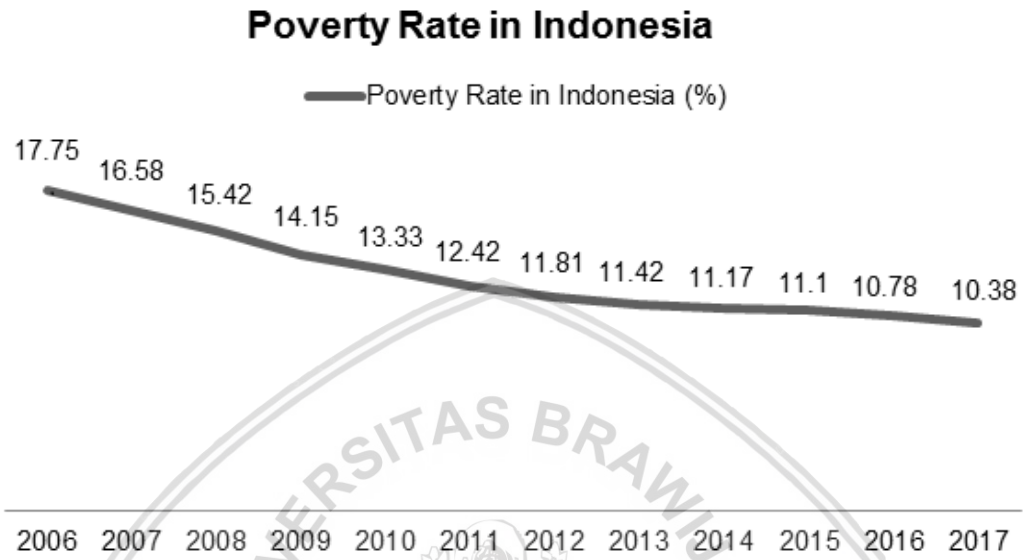
Poverty in Indonesia is caused by various factors, comprising the under standard level of wages, high number of unemployment rate, and slow economic

growth. People can also be classified as poor if they are not able to meet the basic needs or low income level. The measurement of poverty, based on consumption, consists of two basic elements, namely expenditure required to purchase the minimum standard of nutrition and other basic needs, and varying amounts of other needs, reflecting the cost of fulfilling daily life. The cost of getting the minimum calories and other needs is calculated by looking at the price for food that suitable for poor. The basic need is more subjective. The variation of poverty in developing countries is caused by several factors, which are: a) geographical differences, population, and income level, b) historical difference because some regions were colonized by different countries, c) differences in the wealth of natural resources and the quality of the human resources, d) differences in the role of state and private sectors, e) differences in industrial structure, f) differences in the degree of dependence in economic and political power of other countries, and g) differences in power sharing, political structures and institution of the countries (Todaro, 2010).

The poverty problem continues to be a big problem in the history of Indonesia as a developing country. The percentage of poverty rate in Indonesia in the period of 2006-2017 (Figure 1.1) shows decreasing trend. Based on data from Central Bureau Statistics (BPS, 2018), the national poverty rate decreased from 17.75% in 2006 to 10.38%. This value can be used as a benchmark for governments to evaluate the sustainable poverty reduction efforts. The data indicate that poverty phenomenon is decreasing every year, but the government should not be satisfied with the results, because overcoming poverty in a sustainable way is principal. The sustainability in poverty alleviation is important because if there is an increase in the price of basic commodities, it will generate

an inflation phenomenon that will led line to shift the position into the poor category.

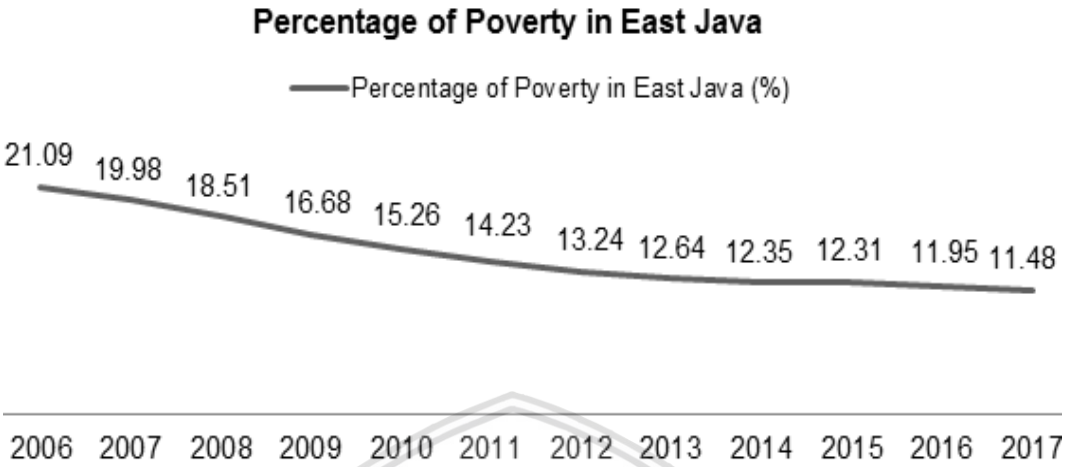
Figure 1.1: Poverty Rate in Indonesia in 2006-2017



Source: BPS (2018), Data processed

Based on data obtained from the Central Bureau Statistics (CBS) above, the government's efforts to overcome the problem of poverty should be sustainably and continuously pursued so that the number of poor people in Indonesia can be decreased, especially for the East Java province. Similarly, the number and the percentage of poor people in East Java province of the period 2006 to 2017 (Figure 1.2) also experienced a declining trend stated from 2006 with the percentage of poor people in East Java of 21.09 % which continued to decline every year until 2017 to 11.48%. It shows the success of East Java province in showing the positive trend as depicted by the declining poverty level each year.

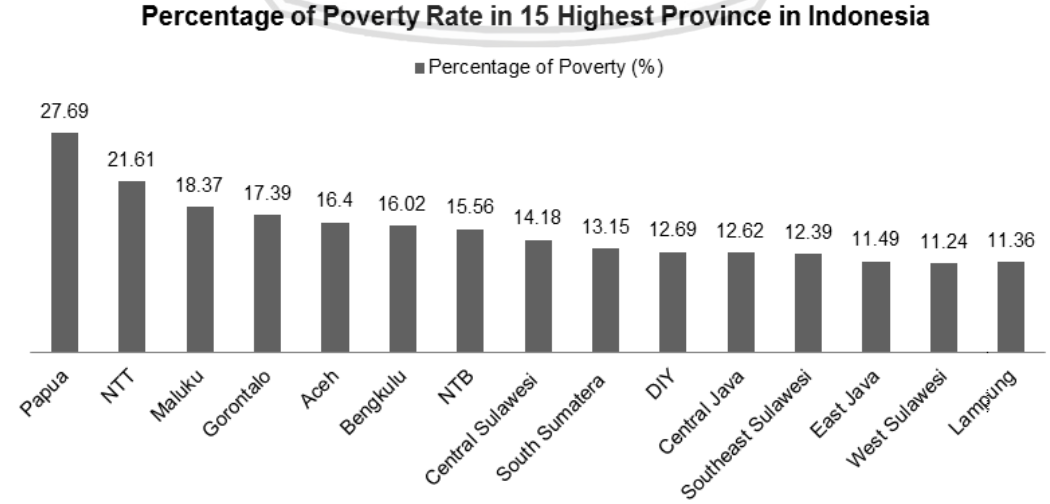
Figure 1.2: The Percentage of Poverty in East Java Province in 2006-2017



Source: BPS (2018), Data processed

East Java province efforts in reducing poverty also need comparison with other provinces in Indonesia. Although from 2006-2017 experienced a decline, but the poverty rate is still high, which above 10%. Figure 1.3 shows the percentage of average poverty in 15 provinces in Indonesia which ranked from the highest poverty rate, and East Java provice ranked on thirteen with an average poverty of 11.48%.

Figure 1.3: The percentage of Poverty Rate in 15 Highest Province in Indonesia



Source: BPS (2018), Data Processed

The level of poverty in East Java province means the aggregate poverty rate of 38 districts or cities in East Java province. The Table 1.1 shows that the poverty rates in 38 districts or cities in East Java province are still uneven, and most of most of the poverty level are still high. Based on that table, there are 9 districts or a city that has a poverty level less than 10%, which are Sidoarjo, Kediri City, Blitar City, Malang City, Pasuruan City, Mojokerto City, Madiun City, Surabaya City, and Batu City. While the other are still above 10%. It means that the government's effort to reduce poverty is not distributed equally to all districts or cities in East Java. Therefore, it is important to know what factors that influence the poverty rate in all districts/cities that be used as a reference for every region in effort to overcoming the poverty.

Table 1.1: The Number of Districts / Cities Based on the Average of Poverty Rate in 2006-2017

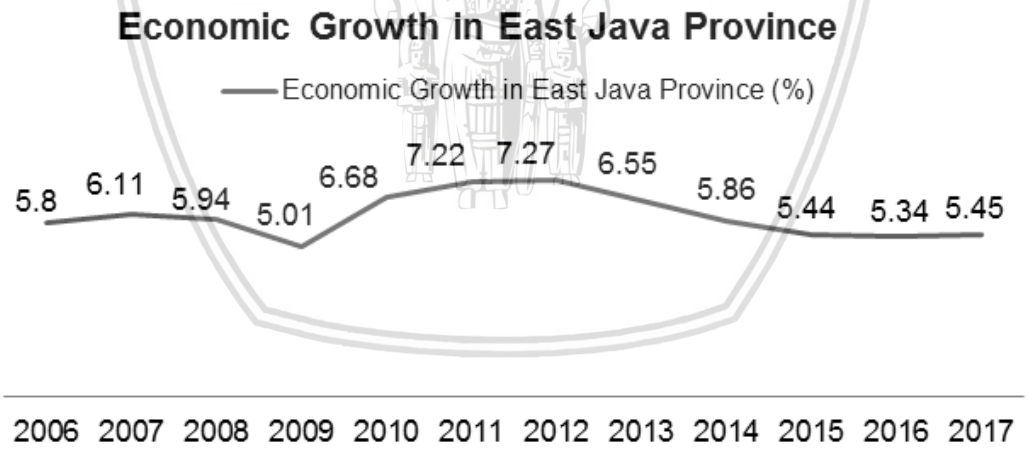
Average of Poverty Rate	The Number of Districts / Cities
0%-10%	9
11%-20%	23
21%-30%	5
31%-40%	1

Source: BPS (2018), Data processed

The problem of poverty should be reduced and the process of development requires high national income and rapid economic growth. The rapid in economic growth and high national income are essential for development. A significant development process is expected to be the right solution of an effort to overcome the problem of poverty. National development must be implemented equally and truly can be felt by all society, not only just one group or part of society itself. The success in an economic growth would be meaningless if it is not accompanied by the equality in income distribution.

Economic growth provides an overview of the performance from the economic development over time within an area. The rate of economic growth is indicated by the Gross Regional Domestic Product based on constant prices overtime. Figure 1.4 shows that from 2006 to 2017, the economic growth rate of East Java province show fluctuating trend. In 2006 to 2007, the economic growth rate increased from 5.80% to 6.11%. However, in 2008 to 2009, there was an initial decrease from 5.94% to 5.01%. The following three years, there was a consecutive increase of 6.68% in 2010, 7.22% in 2011, and 7.27% in 2012. However in the during 2013-2016, the rate of economic growth has decreased successively reaching 6.55%, 5.86%, 5.44%, and 5.34% and increased in 2017 for 5.45%.

Figure 1.4: The Percentage of Economic Growth in East Java Province based on Gross Domestic Regional Product at Constant Price 2006-2017



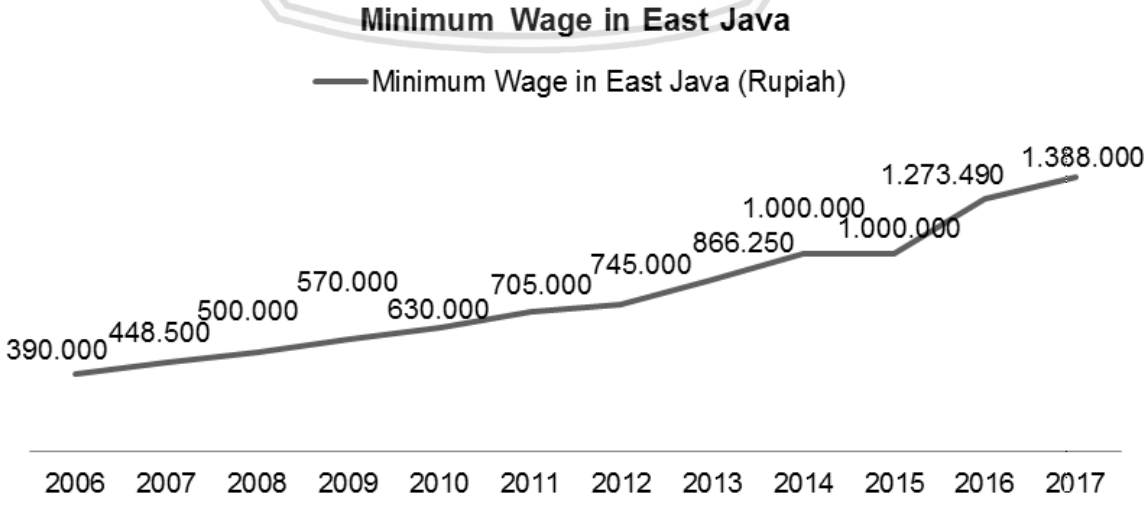
Source: BPS (2018), Data processed

In addition to economic growth, another factor that influences the poverty rate is minimum wages. In Indonesia, the issues of wage are categorized low and directly can affect to the poverty rate. The minimum wage began has been to developed since the early of 1970s and has a goal to meet the minimum standard of living needs. With the development of minimum wage, it is expected

to be able to guarantee the workforce to fulfill the living needs of the community, and able to guarantee the labor productivity and labor welfare. Over time, the number of new additional labor is greater than the growth of employment that available each year. Thus, wage can give an impact to the unemployment rate. The determination of the amount of wages applied by the government in a country will give effect to the existing unemployment rate.

The higher wage set by the government, will decrease the number of workers that work in a country. The minimum wage increases have a negative impact on labor in the urban formal sector. If an increase in the minimum wage reduces the growth of labor in formal sector, the unskilled workers are forced to receive lower wages with poor working conditions in the informal sector. An increasing in level of wages also leads to increase in unemployment as companies take the employee efficiency policies. The development of minimum wage in East Java province (Figure 1.5) shows an increasing trend, which ranging from IDR 390.000,00 in 2006 to IDR 1.388.000,00 in 2017.

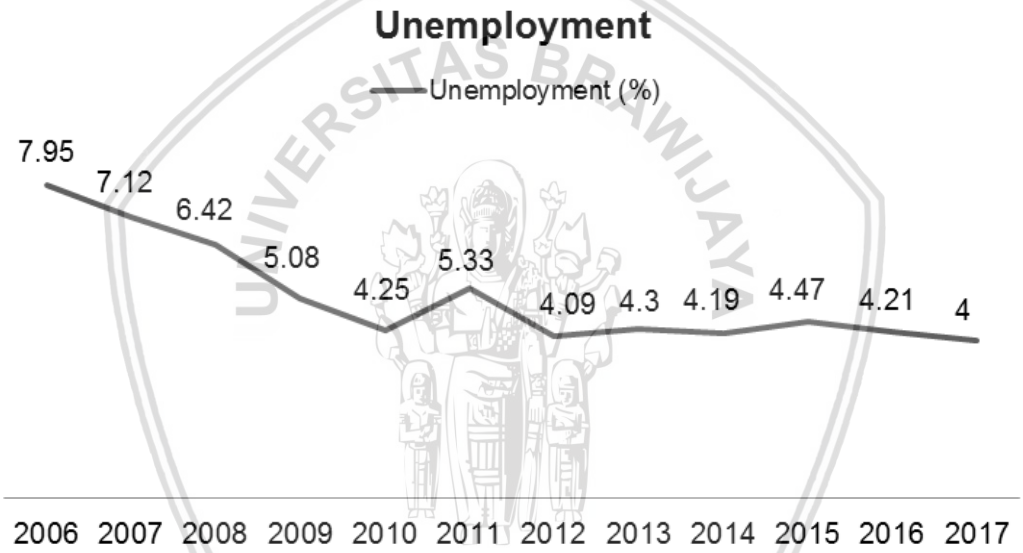
Figure 1.5 The Development of Minimum Wages in East Java Province in 2006-2017



Source: BPS (2018), Data processed

By regarding the minimum wage, another factor influencing poverty rate is unemployment. The number of unemployment rate is indicates the lack of success of development in country. In East Java Province, the development of unemployment rate is fluctuating. As presented in figure 1.6, it can be seen that the unemployment rate tends to decrease. The unemployment rate from 2006 to 2017 was declining from7,95% in 2006 to 4% in 2017.

Figure 1.6: The Unemployment Rate in East Java Province during 2006-2017



Source: BPS (2018), Data processed

Regional development must be not only focus on economic growth, but also consider on how poverty is generated from a regional development process. Thus, economic development must be purposed to pursue the backwardness. The best way to reduce the drawback is by increasing the economic growth as high as possible, thereby exceeding the population growth so that the value of per capita income value will increase automatically and also increase the prosperity of the people. In this research, the high rate of poverty occurred in the East Java province becomes a problem to be studied, which requires the

analysis of several factors that influence the poverty rate in 38 districts/cities including economic growth, minimum wage, and unemployment rate.

Based on the background of poverty problem above, East Java province has the average poverty rate ranked on the thirteen positions compared with other 15 provinces in Indonesia. The average level of poverty rate in East Java province during 2006-2017 was 11,48% an above 10%. It is in contrast to the East Java aggregate GDRP big contribution in terms of Processing Industry and Food Production for 14.86% from the total Indonesian GDP in 2017 (East Java BPS, 2018). In addition, the phenomena of Bojonegoro as the largest oil producer in East Java has not been able to reduce poverty rate. Meanwhile, the economic growth shown by the value of Gross Domestic Regional Product (GDRP) at constant prices during the period of 2006-2015 experienced the fluctuating trend. The minimum wage levels have risen from IDR 390.000,00 in 2006 and continue to increase until 2017 which reach IDR 1.388.000,00. The high unemployment rate also affects the poverty rate in East Java Province, which has a declining trend started from 2006 at 7,95% in 2006 to 4% in 2017.

1.2 Research Question

The success of regional development conducted by the government can be measured by several indicators, one of them is poverty. Increasing in the number of poverty will bring the various kinds of negative social problems and will impact the society welfare.

The high average of poverty rate in East Java province which reached 13,02% in the period of 2006-2017 still shows the high percentage of poverty. It indicates that the government's effort to solve poverty problem in East Java province is not yet sufficient to reduce the negative impact of poverty to national economy. Therefore, further research is needed to identify factors that can affect

poverty levels in all districts/cities, so it can be used as the basic policies for each districts/cities to overcome the poverty problem.

Based on these problems, the formulated research problem in this study is:

1. How is the influence of economic growth, minimum wage, and unemployment towards poverty rate of 38 districts / cities in East Java province of 2006-2015?

1.3 Objective of the Study

Based on the background and research question above, the objectives to be achieved in this research is:

1. To analyze the influence of economic growth, minimum wage, and unemployment towards poverty rate of 38 districts/cities in East Java province of 2006-2015?

1.4 Benefit of Studies

1. For Science

   Especially for economic development, this study is expected to complement the economics science and the study of poverty level by empirically reveal factors that influence poverty rate.

2. For Policy Makers

   For policy makers, this research is expected to provide useful information in understanding the effect of economic growth, minimum wage of districts/cities, and unemployment rate, as well as a consideration for formulating various policies in the future.

CHAPTER II

LITERATURE REVIEW

2.1 Poverty

Poverty can be defined as an inability of individuals to meet the minimum basic needs for decent living. Further explains that the poverty is a condition that lies below the minimum standard value line of good for food and non-food called the poverty line (BPS). Poverty occurs when a person or group of society is not fulfilled their basic right to maintain and develop a dignified life. Poverty by the World Bank (2007) is a situation where an individual or group has no choice or opportunity to improve their standard of living to live healthier and better life according to standard of living, self-esteem and appreciated by each other. According to BAPPENAS, poverty can be defined as a condition where a person or group of people, men and women, are unable to fulfill their basic right to maintain and develop a dignified life (BAPPENAS (2004), in Purwanto (2007).

According to Mikelsen (2003), the idea of poverty changes overtime, but basically relates to the inability to meet basic needs (Yulianto, 2005). The definition of poverty can be reviewed from economic, social and political reviews. In economics, poverty is a lack of resources that can be used to gain the opportunities to increase productivity. While politically poverty means lack of access to power (Effendi, 1993). The National Family Planning Coordination Agency (BKKBN) defines the poverty on family basis. Families belonging to the poor category are pre prosperous and prosperous families, such as families who have not been able to meet the basic needs at a minimum, such as the need for religious teaching, food, clothing, shelter, and health. While the prosperous family I is a family that has been able to meet basic needs at a minimum but has not

fulfilled all the psychological needs such as education needs, interaction in the family and environment and transportation (BKKBN (1994) in Isdijoso, Suryahadi, & Akhmadi (2016)). Friedman (2004) stated that overty also means inequality of opportunity to accumulate a basis social power. This social power base include: a) Productive capital such as land, means of production, housing, health, b) Financial resources, c) Social and political organizations that can be used for common interest such as cooperatives, political organizations, d) Social networks, e) Knowledge and skills, f) Useful information for the life advancement (Purwanto, 2007).

When viewed from the comparison of the consumption level of the population to the poverty line or the number of Rupiahs for monthly consumption, the definition of poverty according to UNDP (2006) is a situation where a person or household has difficulties to meet the basic needs, while the environment of the population lacks opportunities to improve welfare on an ongoing basis or to get out the vulnerability.

Poverty is one of the major diseases in a country's economy, especially in a developing country or third country where poverty is complex and multidimensional. Poverty is complex means that poverty does not appear suddenly, but it has fairly long and complicated background so it is very difficult to know the root of the problem of poverty itself, while poverty is multidimensional means to see from many human needs are diverse, then poverty also has the primary aspects of poverty are assets, political organizations, knowledge, and skills, and secondary assets of poverty of social networks, sources of financial resources, and information (Suryawati, 2005). As a result of the nature of the poverty is illustrated in terms of malnutrition, water, and unsuitable housing, poor health services, and low level of education.

1.1.1 The Types and Causes of Poverty

Living in poverty is not only living in the size of the lack of money and low income levels, but also many other things such as low levels of health and education, unfair treatment in law. In pure economic terms, income poverty is when a family's income fails to meet a federally established threshold that differs across countries. Typically it is measured with respect to families and not the individual, and the families whose economic position in a family. Economists often seek to identify the families whose economic position (defined as command over resources) falls below some minimally acceptance level. Similarly, the international standard of extreme poverty is set to the possession of less than $1 a day. Frequently, poverty is defined in either relative or absolute term based on the types.

1. Absolute Poverty

Absolute poverty is a person's inability with the income he earns to complete the minimum basic needs necessary to live on a daily basis. The minimum requirement is defined in financial size. Absolute poverty measures poverty in relation to the amount of money necessary to meet basic needs such as food, clothing, and shelter. The concept of absolute poverty is not concerned with broader quality of life issues or with the overall level of inequality in society (UNESCO, 2017). In Indonesia, the Central Bureau Statistics determines the absolute poverty of Indonesia is the inability of a person to meet the minimum requirement of calorie energy (2.100 calories per capita per day) used by the body and minimum basic needs for clothing, housing, health, education, transportation and other basic needs.

Based on the World Bank (2006), the size of absolute poverty is used to determine the number of poor people. The poor are those living on less than $2 per day. However, not all countries follow the minimum standard used by the World Bank, because for developing countries, the level is still quite high, therefore many countries determine the national poverty line itself where the criteria used are adjusted to the economic conditions of each country.

2. Relative Poverty

Relative poverty defines poverty in relation to the economic status of other members of the society: people are poor if they fall below prevailing standards of living in a given societal context (UNESCO, 2017). The determination process of relative poverty is very subjective. There are people who have been able to meet their minimum basic needs but are still much lower than the surrounding community. The greater the inequality between upper and lower class live hoods, the greater the number of people who can be categorized as poor, so that poverty is relatively closely related to the problem income distribution, so relative poverty is used to measure the inequality of income distribution.

Beside based on type, the poverty is also divided based on the cause of poverty, including structural and cultural poverty.

1. Structural Poverty

Structural poverty is poverty that occurs in a group of people, because the social structure of the community cannot participate to use the resources that actually available for them. According to Arief (2013), the structural poverty is caused by the poor performance of the Government and the amount of corruption, collusion, and nepotism so the distribution of abundant state wealth

never reach and unfair for the lower class. The state wealth is dominated by certain elites, government, bureaucrat, and some upper middle class people. The characteristic of this poverty is the unavailability of vertical social mobility. The poor will always live in poverty, while the rich will enjoy their wealth (Soemardjan, 1980). According to Nasikun (2001), there are three characteristic of structural poverty, which are : a) Far from the means of production, b) Far from the decision making process, and c) Alienated from the possibility of participation (Suryawati, 2005).

2. Cultural Poverty

Cultural Poverty is poverty that occurs because the attitude and habits of a person or society which generally come from a culture that relatively unwilling to improve standard living with modern procedures. According to Lewis (1983) in Suparlan (1993), cultural poverty consist of values, attitudes, and patterns of behavior that are adaptive to the environment which are lacking that results in discrimination, strife, suspicion, and apathy. Each individual feels worthless, helpless, and low in self-esteem caused by the shackles of structural poverty that is too long in society.

Based on Todaro (2010), the variation of cause's poverty in developing countries is caused by several factors, which are:

1) Geographical differences, population size and income level
2) Historical differences, partly colonized by different countries
3) Differences in natural resource wealth and quality of human resources
4) Differences in the role of the private and state sectors
5) Differences in industrial structure

6) Differences degrees of dependence on the economic and political power of other countries, and
7) Differences in power sharing, political structure and domestic institutions

Meanwhile, according to Nasikun (2001) in Suryawati (2005), several sources and processes causing poverty, which are:

a. **Policy induces processes**, which the process of impoverishment that is conserved, reproduced through the implementation of a policy, among them is anti-poverty policy, but the reality precisely preserve.
b. **Socio-economic dualism**, former colonies suffer poverty due to colonial production pattern, such as farmers become marginal because the most fertile land is controlled by large scale farmers and export oriented.
c. **Population growth,** perspective based on the theory of Malthus, that the population growth such as geometrical progression, while the increase of food is arithmetic.
d. **Resources management and the environment,** are the elements of natural and environmental resources mismanagement, such as agricultural management that fly origin will decrease productivity.
e. **Natural cycle and processes,** poverty occurs because of natural cycles, such as living in critical land, where the land if the rain will flood, but if the dry season and lack of water, so it does not allow maximum productivity and continuous
f. **The marginalization of women,** because it is still regarded as a second class, so that access and rewards work lower than men
g. **Cultural and ethnic factors,** the operation of cultural and ethnic factors that maintain poverty. For example, on the pattern of consumptive to farmers and fishermen during the harvest, as well as customs those are consumptive during the ceremony or religious.

h. **Explorative intermediation,** the existence of a helper who is a mugger, like a debtor

i. **Internal political fragmentation and civil strafe,** a policy applied to an area of strong political fragmentation, which may be the cause of poverty

j. **International processes,** the workings of the international system (colonialism and capitalism) make many countries impoverished

1.1.2 The Characteristics of Poverty

According to Hartono and Aziz (1997), states that the people living in poverty line have several characteristics, which are:

a. They generally do not have their own production factors, such as adequate land, capita; and skills. Own production factors are so few, so their ability to earn the income becomes very limited.

b. They have no possibility of acquiring production assets on their own. Income is not sufficient to obtain land and business capital, while the conditions are not met to obtain credit banking such as credit guarantees and others, so those poor people who need credit are forced to turn to the loan sharks usually ask for heavy conditions and charge a high fee.

c. Their education level is low, and cannot finished the primary school. Their time is spent to earn a living so that no longer left to learn. Their children cannot finish school, because they have to help their parents seek the additional income or take care of younger siblings at home, so that their hereditary is entangled in the backwardness of the poverty line

d. Most of them live in the countryside. Many of them have no land, although there are very few. Generally they become farm laborers or abusive workers outside the farmers because the agriculture works with seasonality then the sustainability of work is less secure. Many of them then work as free workers, trying anything. In the case of a large labor

supply, the wage rate is low so that it confines them below the poverty line, driven by the difficulties of living in the village many of them try to work in the city.

e. The poor amongst those who live in cities are young and have no skills or education, while cities in many developing countries are not ready to accommodate the urbanization of villagers. If in developed countries industrial growth as a pull for rural communities to work in cities, then urbanization in developing countries is not accompanied by the process of energy absorption in industrial development. On the contrary, the development of technology in the city actually attracts more jobs, so the poor people who act to the city in the bag of poverty.

The measurement of poverty according to Foster-Greer Thorbecke are (Todaro, 2010):

$$P\alpha = \frac{1}{n}\sum_{i=1}^{q}\left[\frac{z-y_i}{z}\right] \text{ .....(1)}$$

Where:

α = 0,1,2

z = Poverty Rate

y_i = Average income per capita/month of people under poverty rate (i=1,2,3,…,q)

q = The number of people under poverty rate

n = total population

The criteria are:

α = 0, Headcount Index (P_0), which means the percentage of people under poverty rate

α = 1, Poverty Gap Index (P_1), which means an average of disparity in expenditure of each por population against the poverty rate

α = 2, Poverty Severity Index (P_2), which provides an overview of the spread of spending among the poor. The higher Index value led the higher inequality of expenditure between poor people.

2.2 The Factors Influencing Poverty

There are many factors that caused poverty. According to Kuncoro (2000), poverty is caused by the several factors which are:

a. In macro terms, poverty arises due to the unequal pattern of resource ownership that results in the distribution of unbalanced income. The poor people only have limited resources and low quality.
b. Poverty arises due to the differences in the quality of human resources because of the low quality of human resources, and it means low productivity and low wages.
c. Poverty arises due to the differences in access and capital

The effect of poverty on several aspects of the economy consists of the three main components such as: the factors of Economic Growth Rate (GDRP), Minimum Wages, Education Rate, Health, and not only as the Minimum Wage of Districts/cities is also a factor affect the level of poverty. These factors have a negative effect on poverty. Economic growth in the early stage causes poverty rates to tend rise but as they approach the final stage, there is a continuous reduction in poverty levels. Thus economic growth is said to have a negative effect on poverty (Wijayanto, 2014). In addition to the economic growth, there is still another factor that is the minimum wage of districts/cities. Minimum wage is one of the elements that determine the prosperity of a society. If the condition of full employment rate can be realized, then the people's income will reach maximum. Unemployment will have the effect of reducing people's income, and

that will reduce the level of prosperity that has been achieved. If the level of prosperity declines, it will lead to other problems of poverty (Sukirno, 2006).

2.2.1 Economic Growth

Economic growth is an important requirement to alleviate society from poverty, although economic growth cannot stand alone to alleviate poverty, economic growth remains a major factor in alleviating poverty. Economic growth is a process of increasing the production capacity in a sustainable economy towards a better direction which his realized in the form of the increase in National Income (GDP) as well as Regional Income in the long term (Boediono, 1999). Economic growth is the long term capacity building of the country concerned to provide a range of economic goods to its populations. The increase in capacity itself is determined by the advancement or adjustment of technology, institutional, and ideology against the various demands of existing circumstances. This makes economic growth characterized by three main things, among others (Boediono, 1999):

a. The rate of growth per capita in the real sense (real)
b. The distribution of labor based on the sector of production activity which is the source of its livelihood
c. The pattern of population distribution

The factors that influence the economic growth based on Classical Economics (Adam Smith, David Richardo, Thomas Malthus, and J Stuart Mill), which are: a) Total Population, b) Total stock of goods and capital, c) Land are and Natural Wealth, and d) Technology. Meanwhile, according to Schumpeter, factors that affect economic growth, which are Innovation and Entrepreneur

According to Todaro (2010), until the late 1960s, economist believed that the best way to pursue economic underdevelopment was to increase the rate of population growth. In this way, the per capita income figure will increase so

automatically there will be an increase in the prosperity of society and will eventually reduce the number of poor people. As a result, the main target in economic growth. However, the development undertaken in developing countries often suffers a dilemma between growth and equity. Economic development requires higher national income and for that higher growth rate is option that must be taken. But the problem is not just about how to accelerate the growth, but also who are responsible to implement and entitled the result.

Economic growth can be seen from an increase in GDP of a province, district, or city. While economic growth can be seen from the growth of GDP figures. Currently, most new GDP is calculated based on two approaches, which are from sectoral side / field of business and side of usage. Furthermore, GDRP is also calculated based on current price and constant price. Total GDRP shows the sum of all the added value generated by the population in a given period. According to Central Bureau Statistics, GDRP is defined as the amount of added value by all business units within a region, or represents the sum total of all goods and services and produced by all economic units in a region. Gross Regional Domestic Product at current prices illustrates the added value of goods and services calculated using prices annually, and used to indicate the size of the economic structure and the role of the existing economic sector. The Gross Domestic Regional Product at constant prices represents the added value of goods and services calculated using the price in a given year as the basis of the existing reference, it is used to look at the pattern of growth from year to year. Gross Domestic Regional Product arranged in two forms, which are:

1. Gross Domestic Regional Product Based on Constant Prices

GDRP at the constant prices also known as real GDRP is the added value of goods and services calculated using prices in a given year used as a reference or base year, either at the time of calculating or valuing the production,

intermediate costs, or value added components. According to Badan Pusat Statistik (BPS), GDRP at current prices represents the amount of production value or expenditure or income calculated at the fixed price by using reassessment or defining based on price at the basic level of actual economic activity through this real Gross Domestic Regional Product. The level of economic growth can be defined as the development of economic activities that cause goods and services produced in the community increases. The rate of economic growth in a given year (year t) can be determined using the following formula:

$$\text{Economic Growth} = \frac{Real\ GDP\ current - Real\ GDP\ previous}{Real\ GDP\ previous}\ x100 \quad \ldots\ldots\ldots(2)$$

2. Gross Domestic Regional Product Based on Current Prices

GDRP at current prices or nominal GDRP is the value added value of goods and services calculated using the current prices, either at the time of calculating or appraising production, intermediate costs, or added value. According to Badan Pusat Statistik (BPS), GDRP at current prices is the sum of added value arising from all sectors of the economy in a region. Value added is the value added to the goods and services used by the production unit in the production process as the intermediate input. The added value equals the consideration of the accompanying the factors of production in the production process.

Although the calculation of economic growth is stated with equation, there is several perspectives explaining economic growth. The difference is based on the arguments of economists, which are:

1. Classical Theory

A. Adam Smith

Adam Smith states that an economy will grow and develop if there is increasing population that will expand the market and encourage specialization. The emergence of specialization will increase worker productivity and technological progress to economic growth. This idea based on the acceleration of production system in a country that consist of three main elements, which are availability of natural resources or factors of land production, human resources of population, and availability of capital stock (Todaro, 2010). The division of labor becomes the central point from Adam Smith Theory in effort to increase labor productivity. Economic growth will increase if there is an increase in population. An increase in population will expand the market and encourage specialization. Specialization will led technological progress then economic growth will increase. In the other hand, the limited natural and humans resources are not able to balance the ongoing economic activities due to the savings, capital accumulation, and investment. If the investment is low, then the ability of people to save will decrease which directly reduce capital accumulation. The populations that do not have ability to run production, the rate of investment will also decline and economic growth will definitely decline.

B. David Ricardo

David Ricardo stated that population growth that is too large will cause an abundance of labor. Abundant labor causes each wage to decline, where the wage can only be used to finance the minimum wage level so the at this stage, growth is stagnant or called stationary state. The characteristic of growth according to David Ricardo:

a. Limited amount of land that is very difficult to expand, as a factor of production

b. Increase and decrease in the availability of labor (population) in accordance with the level of wages, whether above or below the minimum wage level which Ricardo calls the natural wage level
c. Capital accumulation occurs when the minimum profit needed to attract them to increases investment
d. Technological Progress from the time to time
e. The agricultural sector is still dominant in the economy

Limited land production factors (natural resources) will limit the economy of a country. A country can only grow to the extent possible by the availability of natural resources. If the potential of this natural resource has been fully exploited, then the economy reaches the stationary position, characterized by:

a. Constant output level
b. Constant population
c. Factors a and b together, which means constant per capita income
d. The wage rate is at minimum wage level
e. Maximum land rent level

C. Malthus

Malthus stated that food increases according to the arithmetical series (1,2,3,4,5,etc), while the population increases according to the geometry series (1,2,4,8,16,etc). As result, food is not enough to support the population (there will be exposure), so the people live at subsistence level and the economy is stagnant. The population growth has not guaranteed an economic growth if it's able to increase the real purchasing power (effective demand).

This theory raises scholar's view that economic backwardness and congestion in parts of the world (Latin America, Africa, Asia) are caused by the nature and behavior of local people, which are attitude of society, laziness, and dependence to nature that is very high, the state of natural resources which very

beneficial and facilitates the human life. But Malthus denied this through institutional reality in the economic structure of society which became a major obstacle to the progress of people. The underdevelopment and poverty of population in that country is not caused by the limited fertile land or the smaller size of land because the population increase and the laziness of population, but poverty is related with fact that very large land is controlled by a handful of upper classes in society which consist of landlord. It makes farmers lose initiative to increase productivity, because the production of land is gained by landlord, while the society is only able to meet basic needs and little investment.

If wages are above the subsistence level, the population will increase, but contrary if wage are under the subsistence level, these conditions will cause high mortality and decline population. If the wage at the subsistence level, it will led to population balance. Malthus believes that the work class is determining by ups and downs of the economic structure.

2. Neoclassical Economic Growth

A. Harrod-Domar

Harrod-Domar stated that the importance of capital formation (investment) as a condition for achieving steady economic growth. If capital formation has been carried out, then the economy will be able to produce goods in large quantities. Harrod-Domar's theory concludes that economic growth is determined by high savings and investment. If savings and investment are low, the economic growth of people in a country will be low (Todaro, 2010).

B. Schumpeter

Schumpeter argued that economic growth is determined by entrepreneur ability, because they dare to innovate in production activities. Economic growth starts from social, political, and technological environment that support the creativity of entrepreneurs. This condition will lead to several pioneering

entrepreneurs who try to implement new ideas in economic life. Not all these pioneers will succeed in innovation, but for those who succeed in innovation, will create a monopoly position for the initiator. This monopoly position will generate profits above the normal profits received by entrepreneurs who do not innovate. This monopolist's profit is a reward for innovators as well as stimulation for aspiring innovators.

C. Robert Solow

Solow develops an economic growth model and described in the function:

$$Y = A .F (K,L) \ldots\ldots\ldots(3)$$

Where:

Y = Output

K = Physical Capital

L = Labor

A = Technology

The output (Y) will increase if the input (K,L) increase. Y will increase if there is a development in technological progress (indicated by increase in A). Therefore economic growth comes from input growth and the development of technological progress which called total growth of productivity factor (Todaro, 2010).

3. Historical Economic Growth Theory

A. Frederich List

Frederich List divides the stages of economic growth based on people's habit in maintaining their survival through the procedures of production. Economic growth is divided into 4 stages, which are: a) Hunting and wandering, b) Breeding and farming, c) Farming and crafting, and d) Craft, industry, and trade.

B. Rostow

According to Rostow, economic growth of a country will experienced stages:

a) Traditional, there is a shift in the structure of labor from agriculture to industry

b) Pre take off, there is a shift in the structure of labor from agriculture to industry

c) Take off, obstacles in the social and political structure can be overcome

d) The drive to maturity, the progress of trade unions

e) High mass consumption, labor dominated by educated labor and residents in cities larger than village

C. Karl Bucher

Karl Bucher describes the economic growth of a country based on the relationship between producers and consumers. The stages are: a) The household period is closed, the community only meets the needs of group itself, b) The household period of the city, trade relations arise between villages and villages with the city, c) The national/community household period, intercity trade exchanges within the country, and d) the world household, the period in which trade has passed the times of the country, such as the present.

4. Endogenous Growth Theory

This theory is the development from Solow model by adding natural resources as an input because national output is not only influenced by K and L, but also influenced by agricultural land or other natural resources such as oil reserves. This model also adds human resources as capital. According to Lucas, physical capital accumulation determines economic growth, while according to Romer, economic growth is influenced by the level of human capital through technological growth. The economic growth model according to Lucas and Romer is:

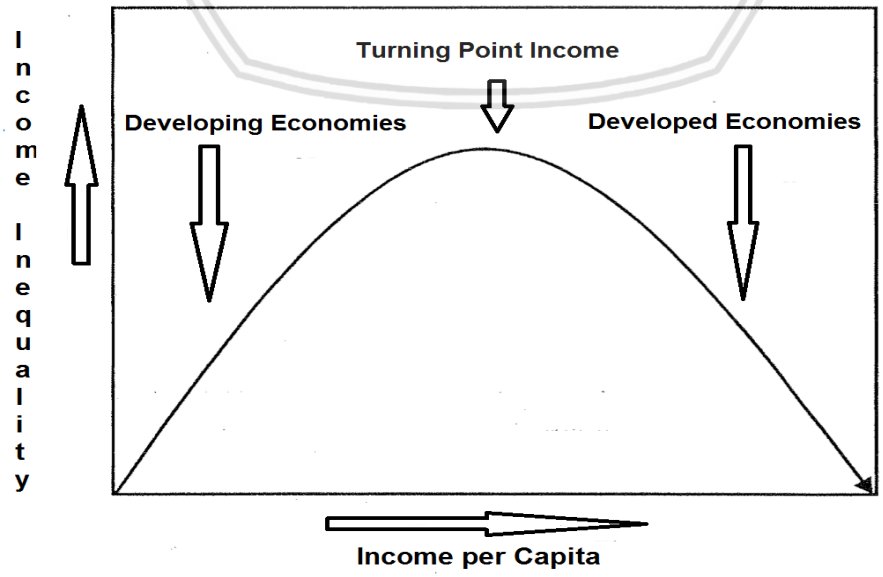
$$Y = A.F(K,H,L) \text{ …….(4)}$$

H means human resources contained in the accumulation of education and training (Todaro, 2010). The contribution of each input is proportional. A country that gives more attention to education will produce better economic growth than those who do not. In the other words, investment in human resources through advancement of education will produce national income or high economic growth. If the investment is carried out relatively and covers all society including low income society, then poverty will decrease (Mankiw, 2010).

5. Kuznet Economic Growth

Kuznet states that economic growth is a long term increase in the ability of a country to provide various types of economic goods with large number of people. Economic Growth can be achieved by three factors which are: a) Continuous increase in inventory, b) Technological development, c) The effective and efficient use of technology. Kuznet's thinking in reducing poverty is explained in the Kuznet's curve which confirms that in the short term, there is a positive correlation between income growth and income gap. But in the long run, the relationship between them becomes negative correlation (Boediono, 1999).

Figure 2.1 Kuznet's Curve



Source: Todaro (2010)

6. Hirschman (Trickle Down Effect)

Trickle-down effect explains how a growth will affect the prosperity of a country. Prosperity can be achieved with high economic growth, without take into account economic equality. The trickle-down effect is argued by the dependence between the central and regions where the region is supplying labor and raw materials. If complementarity is strong, there will be a spread of development in the backward regions. Hirschman argued that an imbalanced growth theory and stated that geographically, economic growth must be unbalanced. In unbalanced economic growth, it can be seen the progress of a central point will create pressure, tension, and encouragement towards development at the next point. Furthermore, Hirschman realized that economic function differ in their intensity at different places. Economic growth is prioritized at the original point before being distributed to various other places.

Poverty reduction requires economic growth as an indicator to see the success of a development. According to Lucas and Romer in Endogenous Growth Theory, physical capital accumulation determines economic growth while economic growth is influenced by the level of human capital through technological growth. Human resources contained in the accumulation of education and training (Todaro, 2010). The contribution of each input is proportional. A country that gives more attention to education will produce better economic growth than those who do not. In the other words, investment in human resources through advancement of education will produce national income or high economic growth. If the investment is carried out relatively and covers all society including low income society, then poverty will decrease (Mankiw, 2010). The transmission of economic growth to poverty based on Endogenous growth theory is when the poverty line becomes a consideration, inflation becomes a relevant variable. If a household has income slightly above the poverty line, when

the income growth is very slow and lower than the rate of inflation, then the goods and services that can be given will be less. The inflation rate will shift the poverty line upwards, and the combination of these will cause the household to fall in poverty line.

The economic growth and poverty have a very strong correlation, because in the early stages of the development process, the number of poor people gradually diminished based on U shaped in Kuznet's Curve (figure 2.1). In the other hand, the research conducted by Deininger and Squire (1995) which states that there is a positive correlation between the economic growth of a country with an increase in poverty. In addition, the study conducted by Ravallion (2001) shows that there is no correlation between economic growth and poverty. Both studies that have opposite results actually reinforce the Kuznet hypothesis with an inverted U curve. Kuznet concluded that positive relationships then become negative indicated that there is an evolutionary process of income distribution from the transition in rural economy to an urban economy / industrial economy (Tambunan, 2001).

Kuznet's theory in terms of inverted U curve in influencing poverty also supported by the Trickle-Down Effect theory from Hirschman that explains prosperity can be achieved with high economic growth, without take into account economic equality. Hirschman argued that an imbalanced growth theory and stated that geographically, economic growth must be unbalanced. In unbalanced economic growth, it can be seen the progress of a central point will create pressure, tension, and encouragement towards development at the next point. Furthermore, Hirschman realized that economic function differ in their intensity at different places. Economic growth is prioritized at the original point before being distributed to various other places. According to Tambunan (2001), the basic analysis for the relationship of economic growth is applied through the trickle-

down effect phenomenon through economic growth in the form of high employment (low unemployment) and higher wages for the poor. If the mechanisms to facilitate trickle down benefits to poor economic growth, economic growth can be effective tool to reduce poverty. The research conducted by Kaluge & Zuhdiaty (2017), related to trickle-down effect stated that economic growth can bring an economic improvement, such as poverty alleviation, better education standards or health improvements. Economic growth itself can be driving force to generate wealth which later trickle down to eradicate poverty and all the problems that accompany it (Cremin & Nakabugo, 2012). The research conducted by Wongdesmiwati (2009) also stated that there is a negative relationship between economic growth and poverty. An increase in economic growth will reduce poverty. This relationship shows the importance of accelerating economic growth to reduce poverty.

The rate of economic growth is the increase in GDRP, regardless of whether the increase is greater or less. Furthermore, economic development is not exclusively measured on the basis of the growth of Gross Domestic Regional Product as a whole, but must consider the extent to which the distribution of income has spread to the layers of society and who has spread to the layers of society and who has enjoyed the results. The GDRP of a region has an impact on quality and on household consumption and if the income level of the population is very limited, many poor household are forced to change their staple food patterns to le least expensive goods with reduces quantities (Sukirno, 2006). According to Kuznet, economic growth has a strong correlation to poverty tends to increase but as it approaches the final stage there is a continued reduction of poverty levels. Thus, it can be said that economic growth has a negative effect on poverty. So it can be said that the economic growth is one factor that influence the poverty rate.

2.2.1 Minimum Wage

The definition of wage based on The Law Number 13 of 2000, chapter I article I, part 30 is:

"wages are the rights of workers or laborers who are accept and stated in the form of money as compensation from businessman and employers to workers or labor that are set and paid according to work agreement or legislation including allowances for workers or their families from their works and job or services that has been or will be carried out".

The minimum wage according to the Central Bureau Statistics (BPS) is the minimum wage that the company pays to the workforce in accordance with the provisions of the applicable law rules in each region. Based on the Regulation of The Ministry of Labor No 7 of 2013 Article 1, concerning the minimum wage explains that the minimum wage is the lowest monthly wage consisting of the basic wage including the fixed allowance established by the governor as the safety net. The provincial minimum wage is the minimum wage that applied to all districts/cities in one province. The sectorial province minimum wage is a minimum wage that sectorial applicable in one province. While the districts / cities minimum wage is the minimum wage that applied in the districts / cities, and the Districts / Cities sectorial minimum wage is the minimum wage applied by sector in the districts / cities. The definition of sectoral here is a group of business fields and their division according to the standard classification of business field (KBLI).

The minimum wages consist of:

a. Provincial minimum wage or districts / cities minimum wage
b. Provincial sector minimum wage or districts / cities sectoral minimum wage

In the beginning, the minimum wage was determined nationally, but in the year 2001, the minimum wage was set by each province. Minimum wage itself

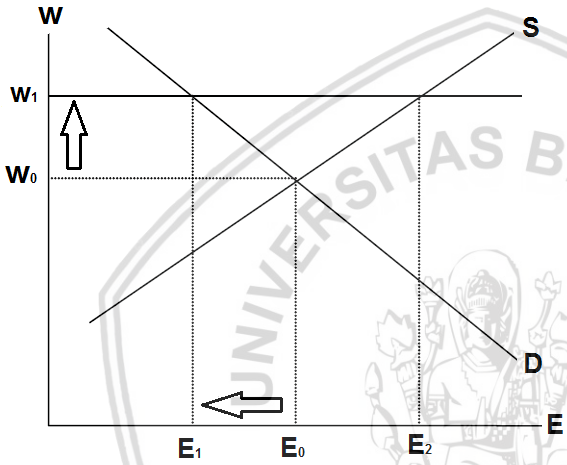
can be determine into: The Regional Minimum Wage , which is a monthly wage consisting of basic wages and fixed determination for the lowest and less than one year worker working in a particular area. The sectoral minimum wage is the prevailing wage in a province based on sector capability. The purpose of the minimum wage is to meet the needs of minimum standard such as health, efficiency, and health of workers. With the minimum wage, it will elevate the low income population.

The provincial minimum wage is set and announced by the governor simultaneously on 1 November. The Governor must also be entitled to establish the minimum wage of districts / cities based on recommendation of the mayor region. The minimum wage of districts / cities is established and announced at the latest on 21 November after the establishment of Provincial minimum wage with a larger number from provincial minimum wage. The minimum wage that has been set applied from 1 January of the following next year and be reviewed annually. Minimum wage policy has become an important labor issue in several countries both developed and developing countries. The goal of minimum wage policy is to cover the minimum living needs of workers and their families. Thus, the minimum wage policy is for a) Guarantee income of workers so it not lower than certain level, b) Increase worker productivity, c) Develop and improve companies for more efficient in production methods (Sumarsono (2003) in Pratomo & Saputra, 2011).

The impact of minimum wage policy on labor will make some workers lose their jobs and become unemployed (Figure 2.2). At the market equilibrium level with W_0 wage level with the number of workers E_0, the government set the minimum wage policy which causes the wage rate to rise from W_0 to W_1 above the market balance. In this case, there is an assumption that the minimum wage policy applies to all workers. The increase in minimum wages causes a decrease

in employment from E_0 to E_1 and a number of E_0 to E_2 become unemployed. Because higher wages encourage someone to enter the E_2 market causing E_2-E_0 who enter the labor market cannot find a job and become unemployed. Based on that curve, the unemployment rate depends on the minimum wage and the elasticity of labor demand and supply. Loss job or unemployment can be interpreted as an increase in poverty.

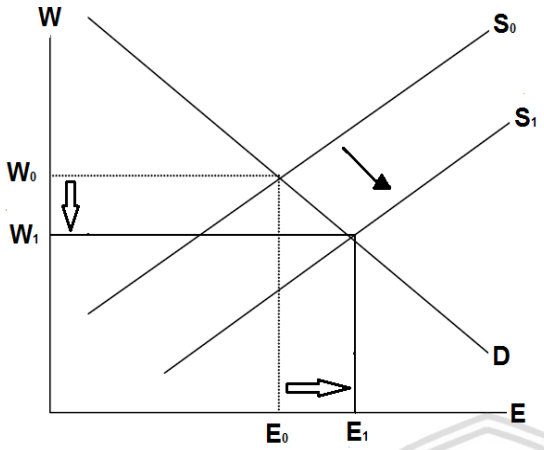
Figure 2.2: The Impact of Minimum Wage Policy on Employment



Source: Pratomo & Saputra (2011)

The minimum wage policy will reduce the demand for labor in formal sector. The excess of labor supply will be absorbed in informal sector whose wage level is not regulated the turn to reduces wage rate. Figure 2.3 explain the shift condition of supply curve from S_0 to S_1. A shift in workforce allows for a shift in informal sector to the formal sector if there is a return to employment in formal sector with better wages. It will cause a shift in informal sector labor curve to S_0, so the wage level in informal sector increases.

Figure 2.3: The Impact of Minimum Wage on Informal Sector



Source: Pratomo & Saputra (2011)

The minimum wage is an attempt to raise the level of low income level of low income people, especially the poor worker. An increasing in minimum wage rate will increase the income of the community, so the welfare will also increase and the people free from poverty. The main objective of setting minimum wages is to meet the minimum living standards such as health, efficiency, and welfare of workers (Kaufman, 1999).

The annual increasing in minimum wage and rising above the level of equilibrium can have a positive impact on poverty, where the minimum wage increase will lead to an increase in labor supply and reductions in employment. An increase in labor supply that is not offset by employment will lead to an excess supply of labor and this will increase the unemployment rate which may eventually worsen the poverty condition (Febrianica, 2015). The same thing was stated by Kurniawati, Gunawan, and Indrasari (2017), that the increase in minimum wages can reduce poverty because of minimum wages and increase income from workers that can help them get out of poverty when the workers are in poor category.

The wages determine one of the factors that influence the unemployment rate and unemployment influence the poverty rate. In addition, the wages are also a compensation received by a unit of labor in the form of the amount of money paid to them (Mankiw, 2010). Thus, the minimum wage has a negative relationship to the poverty rate; the increasing minimum wage in society will reduce the level of poverty.

2.2.3 Unemployment

Unemployment is someone who is looking for a job at a certain level, but cannot obtain the desire job. The magnitude of the unemployment rate is a reflection from the lack of success of development in a country (Sukirno, 2006). According to the World Bank, unemployment is an individual classified in the labor force that actively seeks employment at a certain wage level, but cannot obtain the desired job. The magnitude of the unemployment rate is a reflection of the lack in success development in a country. Unemployment can affect the poverty rate in various ways (Tambunan (2001) in (Khabibi, 2013)).

According to Sukirno (2006), based on the causes, unemployment can be divided into:

a. Frictional Unemployment

Frictional unemployment is unemployment that caused by someone that leaving their job and looking for a better job and in accordance with their wishes. The people that included in frictional unemployment are those who are unemployed not because there is no job, but they are still looking for work that feels appropriate and compatible with it. Unemployment of this type does not cause problems, and can be solved with the concept of economic growth.

b. Structural Unemployment

The structural unemployment is a type of unemployment that occurs due to the structure and composition of the economy, including:

1. The Development of Technology

An increasing in technology will led the manpower moves to the machine power due to the more efficient and inexpensive machine work. Moreover, the increasing demand for industrial production of goods makes the producers replace the manpower into machine workforce. As a result, many workers are unemployed due to the transfer of human labor function to machine workforce.

2. The Existence of Global Competition

The Global competition is a condition where the price of overseas product is cheaper and better than local production either because the overseas production causes the foreign goods to be cheaper than the local products. This foreign competition causes domestic products not able to compete with foreign competition causes foreign goods to be cheaper than local products. This foreign competition cause the domestic industry will go bankrupt until eventually lead to unemployment.

3. The Slowdown in Economy

The decline of the economy in a region is caused by the rapid progress in other areas, so the inter-regional is not able to compete, and in the end the area that cannot compete will produce the unemployment.

c. Natural Unemployment

Natural unemployment is unemployment that applicable to a full level of unemployment. Full employment opportunity is a situation where about 95 percent of the workforce at a time is fully employed. Unemployment as much as 5 percent is what is said to be natural unemployment.

d. Conjuncture Unemployment

Conjuncture unemployment is unemployment in excess of natural unemployment. In general, conjuncture unemployment occurs due to a reduction

in aggregate demand. The decrease in aggregate demand causes the company to reduce the amount of labor or to close the business, thus raising the conjuncture unemployment.

Based on the characteristics, unemployment can be divided into (Arsyad, 1997):

a. Open Unemployment

Open unemployment is the unemployment that occurs due to the growing employment growth and still a bit of employment, so many workers who do not get a job. Open unemployment is a resident who has entered the workforce but has no job and is looking for a job, preparing a business, and already has a job but has not started work (BPS).

b. Hidden Unemployment

Hidden unemployment is unemployment where an economic activity (production activity) is performed by a worker whose amount exceeds the amount that should or exceed the existing standard. This unemployment usually occurs in an institution or organization where a job that can actually be done by one person, but positioned itself to others, so it becomes ineffective.

c. Seasonal Unemployment

Seasonal unemployment is unemployment where at certain times of the year. This unemployment usually occurs in the agricultural sector, where farmers will be idle while waiting for planting and pause between the growing season and the harvest season.

d. Underemployed Unemployment

Underemployed unemployment is unemployment where a person works under the normal working hours. According to the Central Statistics Agency, the normal workforce hours in Indonesia are 35 hours / week, so the workforce who works under 35 hours / week categorized in the half unemployed group.

One important factor that determines the prosperity of a society is the level of income. The communities' income reaches the maximum if full employment rate can be achieved. Unemployment has an impact on reducing people's income, thereby decreasing the level of prosperity they achieve. From the individual perspective, the unemployment will cause the various economic and social problems to the experienced. The state of income causes the unemployed to reduce their consumption expenditure. If unemployment in a country is very bad, political and social turmoil is always prevailing and has the negative effect on people's welfare and long economic development prospective.

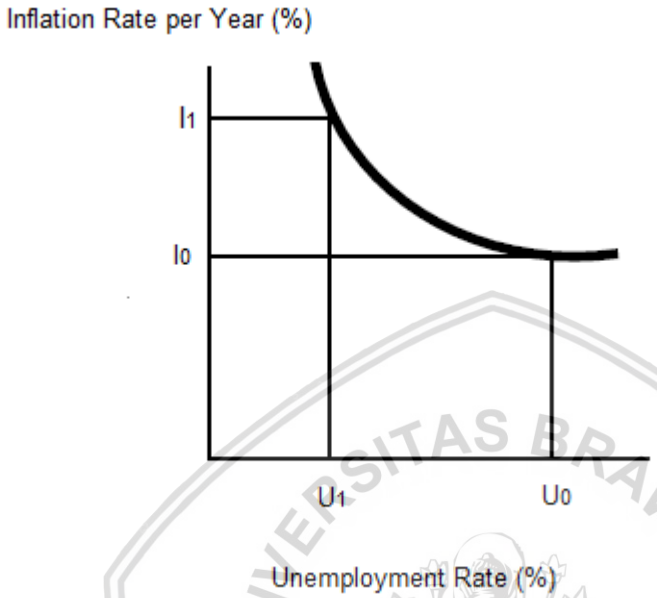
According to Tambunan (2001), unemployment can affect poverty levels in various ways, including:

1. If the Household has a strongly influenced by current income, then unemployment will directly affect the income poverty rate with the consumption poverty rate.
2. If the household does not face liquidity restrictions, which means that current consumption is not too influences by current income, the increase in unemployment will lead to increase in poverty rate in long term, but not too short term.

The unemployment and poverty relationship is very close. Phillips Curve shows the negative relationship between inflation and unemployment. An increased production output and increased unemployment can be caused by high aggregate demand and supply. The high aggregate demand will affect an increase in output and increase unemployment as to reduce unemployment (U_O towards U_1). But because the high demand of output, the price of goods will increase which cause the inflation (I_0 towards I1). If there an increase in inflation, there will be price increase. This increasing price caused people who were once

able to buy certain goods to be unable to buy it again and cause the people to shift to poverty (Mankiw, 2010).

Figure 2.4 : Phillip Curve



Source: Mankiw (2010), processed figure

According to (Sukirno, 2006), one element that influences the level of poverty is the level of income. The income of society will reach maximum if the conditions of full employment can be realized. Unemployment will have an effect on reducing people's income and will reduce the level of prosperity that has been achieved. The decline in level of prosperity will lead to another problem, which are poverty. The research conducted by (Octaviani, 2001), stated that if a society or the person is well or prosperous, but in the community there is also unemployed, unemployment will automatically reduce the prosperity of a society which automatically also will affect the level of poverty. Some households in Indonesia have very large dependence to buy daily necessities. Unemployment is one of the causes of poverty. Unemployment, underemployment or lack of productive land as an income generating assets is critical for the poor when

obtaining the most basic needs for food, water and shelter is something that must (World Bank in Kaluge & Zuhdiaty (2017).

The effect of unemployment is reducing the income of the society which reduces the level of prosperity that has been achieved. The declining in welfare of the people due to unemployment will increase their chances of being trapped in poverty because they have no income. If the unemployment in a country is very bad, then the political and social condition of society always prevailing and causing adverse effects on the welfare of society and economic development in the long term (Sukirno, 2006). Furthermore, if these unemployment problems occur in low income groups (especially those with income levels slightly above the poverty line), then unemployment incidents will easily shift their position into the poorer groups, which means that the higher the unemployment rate will increase poverty.

2.3 Previous Research

a) Research conducted by Kaluge & Zuhdiaty (2017) under the title "The Analysis of factors that affect poverty in Indonesia over the last five years (Case studies in 33 provinces)". The study analyses how economic growth, open unemployment rates, and human development index influence the poverty. The independent variables of this research are economic growth, open unemployment rate, and human development index. The method used in this research analysis is panel data analysis. The results of this study indicate that the independent variables of economic growth, open unemployment rate, and human development index affect the dependent variable seen from the value of f-statistic < 0.05. The value of R^2 which 0.96840 explains that the independent variable can explain 96% of the dependent variable and the rest is explained by other variables. All independent variables have a negative

relationship to poverty. Among the three variables are only human development index variables that affect poverty. While economic growth and open unemployment rate have no effect on poverty.

b) Research conducted by Rahmi (2016) with the title "The Effects of Minimum Wage and Gross Regional Domestic Product (GRDP) on employment in East Java Province". The dependent variable in this research is the employment in 38 districts / cities of East Java Province in 2009-2013. The independent variable in this research is the minimum wage and the Gross Regional Domestic Product (GRDP) in 38 districts / cities of East Java Province in 2009-2013. The minimum wage has negative and significant influence the employment in East Java Province. GRDP variable has negative and non-significant influence to the employment rate in East Java Province. The minimum wage variable is the dominant variable to the employment in East Java Province.

c) Research conducted by Khabibi (2013) with the title, "The Analysis of Factors that Influence Poverty Level (Case Study 35 districts / cities in Central Java province on 2011)". The independent variable that used in research is minimum wage, GRDP, and unemployment rate. The dependent variable that used in this research is the percentage of poverty. The method used is the Ordinary Least Square (OLS) by using Multiple Regression Analysis, with statistical test (t-test, F-test, and coefficient determination (R^2). The t-test result states that with 25%, variable minimum wage and unemployment have significant effect on poverty rate, while economic growth variable does not have significant effect to poverty level. The result of F-test states that together the variable of economic growth, minimum wage and unemployment rate have

significant effect to poverty level at 35 districts / cities in Central Java Province.

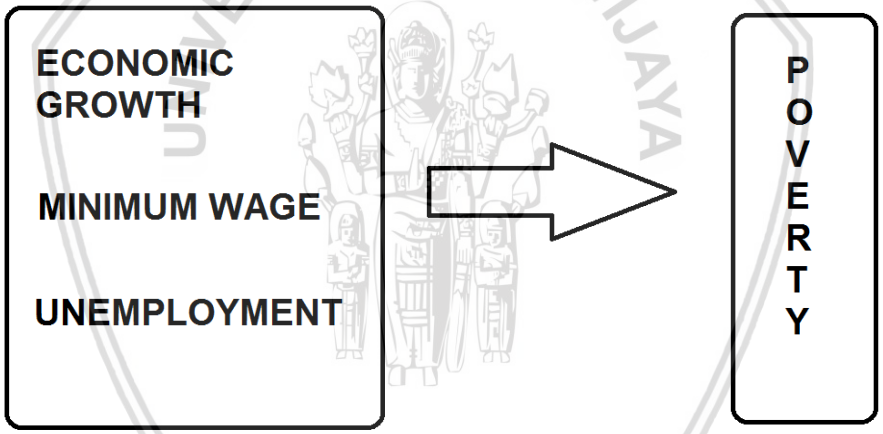
d) Research conducted by Siregar & Wahyuniarti (2008) with the tittle "Impact of Economic Growth on The Reduction of Poor People". The analysis used is descriptive analysis and econometrics through tables, graphs and panel data. The data used is secondary data from Badan Pusat Statistik (BPS) and Indonesian Bank in 1995-2005 covering 26 provinces in Indonesia. The result shows that economic growth has a significant effect on reducing poverty. But the magnitude of the influence is not relatively large. Inflation and population have a significant effect on poverty, but the magnitude of the influence is relatively small. Increasing agricultural sector share and industrial sector share also significantly reduce the amount of poverty. Another Significant variable and the most significant influence on poverty reduction is education.

e) The research conducted by (Wongdesmiwati, 2009) with the tittle "Economic Growth and Poverty Alleviation in Indonesia: Econometric Analysis" and use multiple linear regression analysis in 2990-2004. The dependent variable used is poor people. While the independent variable used are Indonesian population, economic growth, literacy rate, electricity used, and food consumption. The result of this study is the variable number of population has a positive and significant effect on the number of poor people. Economic growth variables and literacy variables have a negative and significant effect on the number of poor people. Variable life expectancy, electricity use, and food consumption are not significant and affect the poor population.

2.4 Theoretical Framework

The theoretical framework in this study is the poverty is influenced by three variables, including economic growth, minimum wage of districts/cities, and unemployment rate. All the three variables are classified into dependent variables (free) and together, with the dependent variable (bound) that is poverty measured by panel data regression analysis to get the level of significance. With these results, it is expected to obtain the level of significance of each independent variable in affecting poverty. This level of significance is expected to provide an overview to the policy makers concerned about the causes of poverty (Figure 2.5).

Figure 2.5 Theoretical Framework



Source: Writer, 2018

From the theoretical framework above, it can be argued that economic growth has a strong relationship to the poverty rate. In early stages, economic growth caused the poverty rate tend to rise but as is approaches the final stage, there is a continuous reduction in poverty levels. It can be said that economic growth has a negative effect on the level of poverty. The minimum wage is an effort to raise the level of low income people, especially the worker who still poor. Increasing the minimum wage rate will increase the income of the community so the welfare of society also increase and free from poverty. Unemployment causes a

decrease in income of society. The existing unemployment in the society reaches maximum point when full employment can be achieved. The existing unemployment in society will inhibit people's income to the maximum, thereby reducing the prosperity that should be achievable. Thus, the unemployment will increase the number of poor people, and has a positive relationship to poverty.

2.5 Hypothesis of Research

Hypothesis is a statement that is still temporary about the existence of a certain relationship between variables that used in a research. The temporary term in this hypothesis can be changed, replaced by another more appropriate hypothesis. This is possible because the hypothesis obtained depends on the problem under study and the concept used.

This hypothesis discusses the influence of independent variable that is poverty level to dependent variable that is economic growth, minimum wage, and unemployment. Testing the complete hypothesis can be formulated as follows:

1. Alleged that economic growth has a negative impact in influencing poverty rate of 38 districts/cities in East Java province of 2006-2015
2. Alleged that the minimum wage has a negative impact in influencing poverty rate in East Java province
3. Alleged that the unemployment rate has a positive impact in influencing the poverty rates in East Java Province

CHAPTER III

METHODOLOGY

1.1 The Type of Research

The type of this research is quantitative research type. The quantitative research type has a purpose to develop and use the mathematical models, theories or hypotheses related to the existing phenomena. In this research, the collected data has been collected then processed and analyzed to find the relationship between the studied variables. The quantitative research is used in this study because this research has macro scope.

1.2 The Type and Source of Data

The type of data used in this research in the secondary data obtained from the Central Bureau of Statistics (BPS), documents of government, companies or organizations, or newspapers, magazines, or other print media. The secondary data used in this study consist of time series data during the period of 2006-2015 and the cross sectional data covering 38 districts / cities in East Java province. The collection of secondary data can be done in a variety of settings, various sources, and events. When viewed from the various source, the collection of data will directly provide data to data collectors, and the secondary sources are sources that do not directly provide data to the data collectors, for example from another person or through documentation (Sugiyono (2011) in Rahmi (2016)). The methods of data collection that used in this research is downloading the quantitative data, in the form of Secondary data obtained from Central Bureau of Statistics (BPS), the National Development Planning and Research Agency, and

the Department of Manpower and Transmigration by taking the population from 38 districts / cities in East java province in the period of 2006-2015.

1.3 The Research Variable and the Operational Definition of Variable

The research variables and operational definitions of variable are the concept that can be measured with the various values to provide the real picture of the studied phenomena. This research used two variables including dependent variable and independent variable.

1. Dependent Variable

   The dependent variable used in this research is the poverty rate in 38 districts / cities in East Java province during 2006-2015.

2. Independent Variable

   The independent variables used in this research are the economic growth (GRDP), minimum wage, and the unemployment rate of 38 districts / cities in East Java province during 2006-2015.

After specifying the available dependent and independent variables, then the operational definition to clarify and facilitate the understanding of the analyzed in this study. The operational definition of each required variable required is as follows:

1. Poverty Rate (Y)

Poverty rate (Y) is the percentage of the population living under the poverty line established by the Central Bureau of Statistics (BPS). The poverty data used in this study is poverty data in 38 districts / cities in East Java during 2006-2015 (in percentage).

2. Economic Growth (X1)

Economic growth (X1) is explained by the Gross Regional Domestic Product (GRDP) at constant price, which the amount of the economic net value output

over the economic activities in the certain regions (province or districts / cities) in one certain period. The data which is used in this research is the real GRDP of 38 districts/cities of East Java Province in 2006-2015 (stated in percentage).

3. Minimum Wage (X2)

Minimum wage (X2) is the minimum monthly wage consisting of basic wages including fixed allowance based on the Regulation of the Ministry of Labor Number.07 year 2013 concerning minimum wage. This wage is the payment for the employee in the form of money. The data used in this research is the data of minimum wage from 38 districts/cities in the East Java province in 2006-2015 (stated in rupiah).

4. Unemployment Rate (X3)

Unemployment rate (X3) in the form of open unemployment rate is the percentage of the population in the workforce that is not working and looking for work in 38 districts/cities in East Java Province during 2006-2015 (stated in percentage).

1.4 The Data Analysis Method

This study employed quantitative research method using panel data analysis. The methods of analysis used the panel data analysis and use the Eviews 9 as data processing tool. Data panel method is a method used to perform empirical analysis that not only use time series data or cross section, but merger between them. In this study, the data used in the form of time series data during 2006-2015 and cross section data in the form of data from 38 districts / cities in East Java province. Based on literature review and in accordance with the purpose of this study, then formulated a regression model as follow:

$$Y = f(X_1, X_2, x_3) \quad \ldots\ldots\ldots(5)$$

Where:

Y = Poverty (%) X_1 = Economic Growth (%)

X_2 = Minimum Wage (IDR) X_3 = Unemployment Rate (%)

Panel data was used to estimate this research model parameter, so the some approaches, used were:

1. Common Effect Model / Pooled Least Square

This model is known as the *Common Effect* estimation that is the simplest regression technique to estimate panel data combining time series data with cross section data. This model only combines the data without considering the differences between time and the individual so it can be said that this model is similar to *Ordinary Least Square* method because it uses the usual smallest square. This research concerns about identifying factors that influence the poverty rate including economic growth, minimum wage, and the unemployment rate of 38 districts / cities of East Java Province. The data used in this research is time series data for ten years in 2006-2015 and cross section data from 38 data as the representative of districts / cities in East Java. This combination produces 380 observations with the equation function as written below:

$$Y_{it} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon_{it} \ldots\ldots\ldots(6)$$

Where:

T = the amount of time

t = 1,2,3,…,T (number of time)

Y_t = Poverty (%)

X_1 = Economic Growth (%)

i = 1,2,3,…,N ; t = 1,2,3,…,T

X_2 = Minimum Wage (IDR)

X_3 = Unemployment Rate (%)

ε_t = Residual β_0 = Constanta

β_1,β_2,β_3 = Coefficient of each variables

This approach only assumes that the same happens in various periods. In some panel data studies, this model is often never used as a major estimate

because the nature of this model does not distinguish behavior to allow for bias, but this model is used as a comparison of the two other model selections.

2. Fixed Effect Model

Fixed Effect Model is a model in panel data analysis with different intercept for each cross section subject, but the subject slope does not change overtime. This model assumes that the intercept (γ_0, basis estimation Surabaya City) is different in every subject while the slope remains the same between the subjects. Distinguishing one subject with another used dummy variables (D_1-D_{37}) which are Pacitan, Ponorogo, Trenggalek, Tulungagung, Blitar, Kediri, Malang, Lumajang, Jember, Banyuwangi, Bondowoso, Situbondo, Probolinggo, Pasuruan, Sidoarjo, Mojokerto, Jombang, Nganjuk, Madiun, Magetan, Ngawi, Bojonegoro, Tuban, Lamongan, Gresik, Bangkalan, Sampang, Pamekasan, Sumenep, Kediri City, Blitar City, Malang City, Probolinggo City, Pasuruan City, Mojokerto City, Madiun City, and Batu City. This model commonly referred as Least Square Dummy Variable (LSDV) model. The equation model in this research can be explained as follows:

$$Y_{it} = \gamma_0+\beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \gamma_1 D_1 + \ldots + \gamma_{37} D_{37} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots(8)$$

Description:

P_i = Poverty Rate (%)

X_1 = GDRP (%)

X_2 = Minimum Wage (Rupiah)

X_3 = Unemployment (%)

γ_0 = Basis Estimation Surabaya City, Intercept

$\gamma_1,\ldots, \gamma_{37}$ = Dummy coefficient of Each Region

$D_1,\ldots,D_{37}$ = Dummy Variables of Each Region

3. Random Effect Model

Random effect due to variations in the value and direction of the relationship between subjects is assumed to be random specified in residual form. This model estimates panel data that residual variables are suspected to have inter-time and

inter-subject relationships. The random effect model is used to overcome the weakness of fixed effect model using dummy variable. The panel data analysis method in the random effect must meet the requirement that the number of cross section must be greater than the number of variables in the study. The equation of Random Effect Model in this research can be written as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + w_{it} \ldots\ldots(9)$$

Where:

$$W_{it} = \varepsilon_i + u_i \ldots\ldots..(10)$$

W_{it} consist of two component which are ε_i (residual cross section) and u_i (residual combined time series and cross section). Random Effect Model is also called the Error Component Model because the residual consist of two components.

The determination of the best model between Common Effect Model, Fixed Effect Model, and Random Effect Model used two model estimation techniques. These two techniques used were panel data regression to obtain an appropriate model in estimating panel data regression. The two tests used are Chow test and Hausman test. Chow test was used to choose between Common Effect Model or Fixed Effect model. While the Hausman test is used to choose between Fixed Effect Model or Random Effect Model in estimating panel data regression.

1. Chow Test

Chow test is the test that for deciding whether the model approach is the *common effect* or the *fixed effect*. The hypothesis for this test is:

H_0: Common Effect Model

H_1: Fixed Effect Model

If the P-value is less than α, it means that H_0 will be rejected and accept H_1 which means Fixed Effect Model is accepted. However, if the P-value is greater

than α, it means that H_0 is accepted and reject the H_1, which means that Common Effect Model is accepted. The value of α is 5%.

2. Hausman Test

In order to choose which approach that most suitable with the equation model and data between *Fixed Effect Model* or *Random Effect Model,* it is better to use the Hausman Test using Chi Square value, so the decision to choose panel data method can be figured statistically. The hypothesis for Hausman test is:

H_0: Random Effect Model

H_1: Fixed Effect Model

If the P-value is less than α, it will reject H_0 and accept H_1, which means using Fixed Effect Model. However, if the P-value is greater than α, it will accept H_0 and reject H_1 which means using Random Effect Model. The value of α is 5%.

1.5 Classical Assumption Test

The classical assumption test was used as the requirement in multiple linear regression model. The multiple linear regression model can be executed after the model of this research meets some of the requirements which mean passing the classical assumption. The requirement that should be obtained are Normally distributed data using Normality test, non multicolinearity using multicolinearity test, and heteroscedasticity using heteroscecasticity test. Therefore, it is necessary to do the classical assumption test before doing the multiple linear regression tests.

1.5.1 Normality Test

In order to recognize whether the error term follows normal distribution, the normality assumption test must be completed. The normality test is used to find out whether in a regression model the dependent variable and the independent variable are normally distributed or not. A good regression model is a regression

model that has a normal distribution. To find out whether the regression model is normally distributed or not, it used *Jarque Bera* test by comparing the value of probability Jarque Bera with the value of α. The hypothesis in normality test is:

H_0: error term follows the normal distribution

H_1: error term does not follow normal distribution

If the probability of Jarque Bera value is greater than α, the H_0 is accepted and H_1 is rejected which means that the error term is normally distributed. But if the probability of Jarque Bera is less than α, it means that the H_0 is rejected and H_1 is accepted which means the error term is not normally distributed.

1.5.2 Autocorrelation Test

Autocorrelation test is used to determine whether the correlation between residual both in time and cross each other in linear regression model. If there is a correlation between residuals, it means that there is an autocorrelation inside the model, so the model becomes inefficient. Autocorrelation test can be performed using Durbin Watson (DW) test. The method to detect if there is serial correlation is by comparing the Durbin Watson (DW) value from the counting with the DW table value. The hypothesis from this test is:

H_0: there is no positive / negative autocorrelation

H_1: there is positive / negative autocorrelation

When the value of Durbin Watson model is greater than the value of Durbin Watson table lower limit (dL), it means that there is positive autocorrelation problem (dw > dL). When the value of Durbin Watson is on the value (4 – Dl < dw <4), it means that there is negative autocorrelation problem. So, H_0 is rejected and H_1 is accepted.

When the value of Durbin Watson Model is on the value of (dU < dw < 4 – dU), it means that there is no negative / positive autocorrelation problem. So, H_0 is accepted and H_1 is rejected.

3.7.3 Multicolinearity Test

Multicolinearity test is used to find out whether the model of linear regression equation correlates between the independent variables. A good regression model is the model that has no correlation between independent variables. To measure the occurrence of multicollinearity in the regression model, it can be seen from the correlation coefficient between each independent variable. In eviews, multicollinearity test can be done by regressing all variables. Then by clicking on **Quick** > select **Correlations** > then **enter the independent variable only** > **ok / enter**. If coefficient > 0.80, it means that the regression model occurs multicollinearity. Conversely, if coefficient < 0.80, means that there is no multicollinearity inside the model. If there is multicollinearity, the regression coefficient cannot be determined and the error standard cannot be defined. In addition, if high collinearity occurs but it is not perfect, the estimation of the regression coefficient is still possible, but the standard error value is likely to be high. As a result, the population value of each coefficient cannot be precisely estimated.

3.7.4 Heteroscedasticity Test

Heteroscedasticity test is used to find out whether the linear regression model has residual variance or not in all observations. If there is variance, then in the linear regression model detected the existence of heteroscedasticity. Heteroscedasticity is contrary to the assumption of a constant basis of regression or it can be said that residual have no variance for all observation. To detect the presence of heteroskedasticity in a model, the Breusch-Pagan Godfrey test can be used to compare the value of Prob. Chi square (2) in Obs*R-square with α. The hypothesis is:

H_0: homocedasticity

H_1: heteroscedasticity

If the value of Prob. Chi square (2) in Obs*R-square is less than α, it means that H_0 is rejected, and H_1 is accepted. If H_0 is rejected, and H_1 is accepted, it means that there is heteroscedasticity inside the model. If the analysis of regression models in panel data using Fixed Effect Model (FEM), the heteroscedasticity test used is Glejser test. It is necessary to see if there is a classical assumption of heteroscedasticity in the regression model. If the selected model is Random Effect Model (REM), then the test can be finished because Random Effect Model using Generalized Least Square Method (GLS) can ignore the problem of classical assumption (multicolinearity, heteroscedasticity, and autocorrelation).

Before doing Glejser test, it must create the absolute residual first by clicking **Genre** on work file > type: **reabs=abs(resid)** in equation column > click **ok/enter**. If it is correct, then there will be file **resabs** on workfile. The next step is to do regression with the dependent variable that is resabs and independent variable that is x1, x2, and x3. Block the variable > click right > click **open** > **open as equation** > **options pa**nel > select **Fixed Effect** > **ok/enter**. If the Glejser test process is done correctly, then the display will appear the result of Glejser test. The result of test is considering the probability values of each independent variable. If the probability value < 0.05 then there is problem of heteroscedasticity in independent variable

3.6 Statistic Test

The statistic test is used to recognize the proper model and if the coefficient can be estimated as suitable with the theory or hypothesis. This test consists of Determination Coefficient R-square, the significance of Parameter (t test), and the simultaneous significance (F-test).

3.6.1 Determination Coefficient R-square (R^2)

Determination Coefficient R-square (R^2) is used to measure how the ability of independent variables in influencing the existing dependent variable. The value of R^2 is between 0-1 and 0-100 in percentage. If the R^2 is approaches zero, it means that the ability of independent variable is very limited. If the value of R^2 is more close to 1 or 100%, it means that the independent variable is able to provide almost all the information needed to meet the dependent variable.

3.6.2 The Significance of Parameter (T Test)

The significance of parameter (T test) is used to recognize the level of significance of the influence of independent variables on the dependent variable individually with the assumption that other variables are constant. The hypothesis used is:

H_0: $\beta_1 = 0$, the independent variable partially has no influence to the dependent variable

H_1: $\beta_1 \neq 0$, the independent variable partially has influence to the dependent variable

Testing the influence of each independent variable may use the probability of each variable. If the probability < α, it means H_0 is rejected and H_1 is accepted and the independent variable partially influence the dependent variable. On the significance rate of 5%, the test criteria are:

If t statistic < t table, H_0 is accepted and H_1 is rejected, which means that one of the independent variable does not influence the dependent variable. If t statistic > t table, H_0 is rejected and H_1 is accepted, which means that one of the independent variable influence the dependent variable.

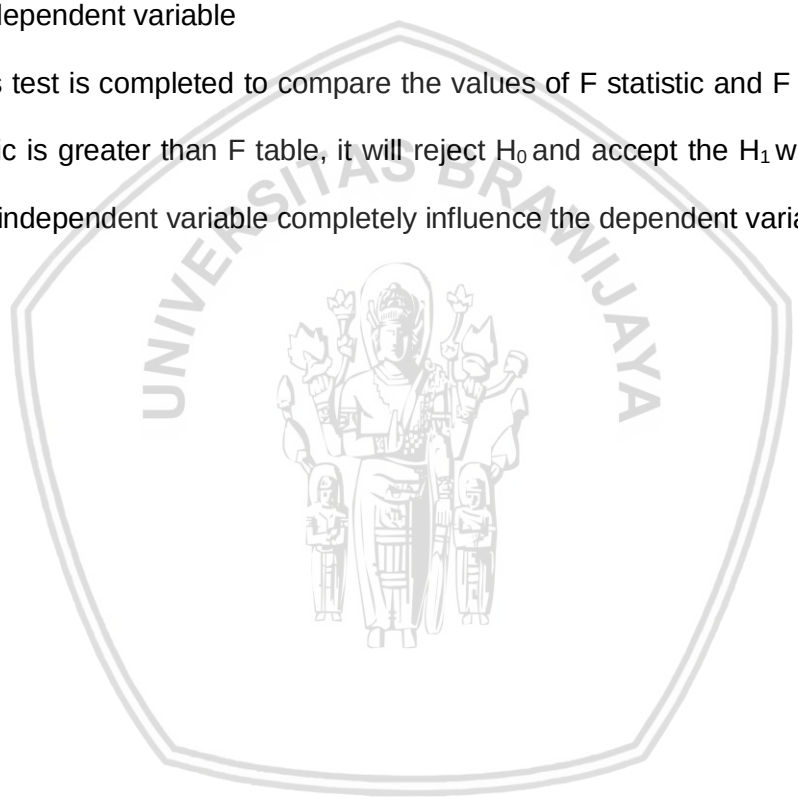
3.6.3 The Simultaneous Significance (F-Test)

The simultaneous significance (F-test) is used to indicate whether all independent variables inside the model have an influence to the dependent variable. The hypothesis for this test is:

H_0: $\beta_1 = 0$, means that there is no completely independent variable influence to the dependent variable

H_1: $\beta_1 \neq 0$, means that completely independent variable influence to the dependent variable

This test is completed to compare the values of F statistic and F table. If the F statistic is greater than F table, it will reject H_0 and accept the H_1 which means that the independent variable completely influence the dependent variable.



CHAPTER IV

DISCUSSION

1.1 Description of Research Object

The object used in this research is 38 districts / cities in East Java Province on 2006 – 2015. This discussion illustrates the macroeconomic conditions of 38 districts/cities in East Java Province covering poverty, economic growth, districts/cities minimum wage, and unemployment rate.

1.1.1 Geographical Condition

East Java province is the eastern part of Java Island with Surabaya as the capital city. It has an area of 47,922 km^2 and a population of 42.030.633 (2017 census). East Java has high economic significance which contributes 14.85% to the national Gross Regional Domestic Product. This province has the largest area among 6 provinces in Java Island, and has the second largest population in Indonesia after West Java (Wikipedia, 2018). Administratively, East Java province is bordered by:

North: Java Sea

East: Bali Strait

South: Indian Ocean

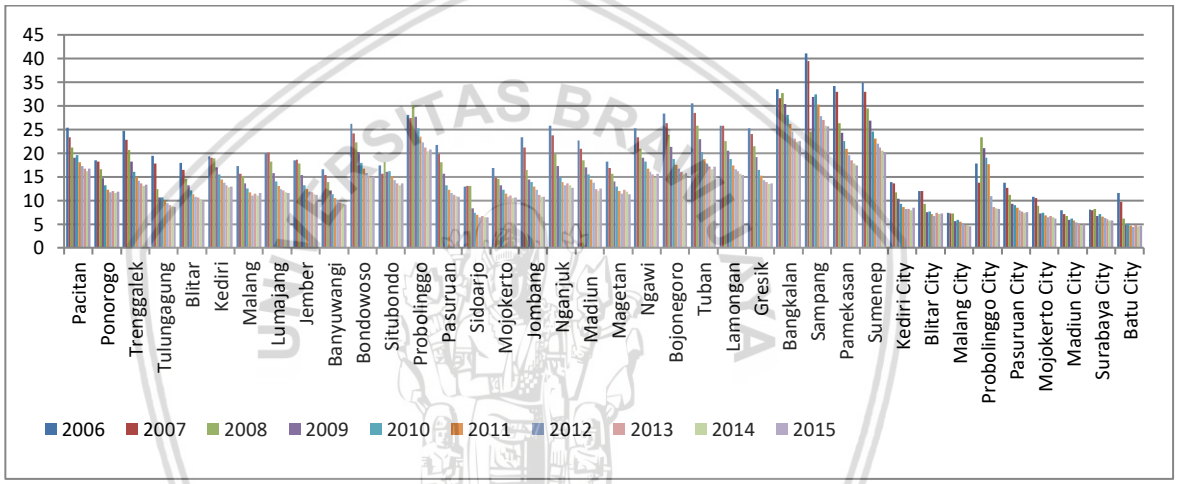
West: Central Java

1.1.2 Poverty

Poverty can be defined as the inability of individuals to meet the minimum basic needs for decent living. Further explains that the poverty is a condition that lies below the minimum standard value line of good for food and non-food called the poverty line (BPS and Ministry of Social Affairs). Poverty by the World Bank is defined as a situation where an individual or group has no choice or opportunity to improve their standard of living to live healthier and better life according to standard of living, self-esteem and appreciated by each other.

The problem of Poverty in East Java Province is a strategic issues that being a top priority to be solved. Based on CBS data, the higher poverty rate is developed by East Java province. About 4.775.000 people are classified as poor. More than 3.2 million people are live in rural areas and 1.5 million in big cities with limited monthly income limit for Rp 318.000,00. Figure 4.1 shows the percentage of poverty rate in East Java Province in 2006-2015.

Figure 4.1 The Data of Poverty Rate in 38 districts / cities in East Java Province in 2006-2015 (%)



Source: BPS (2018), Data processed

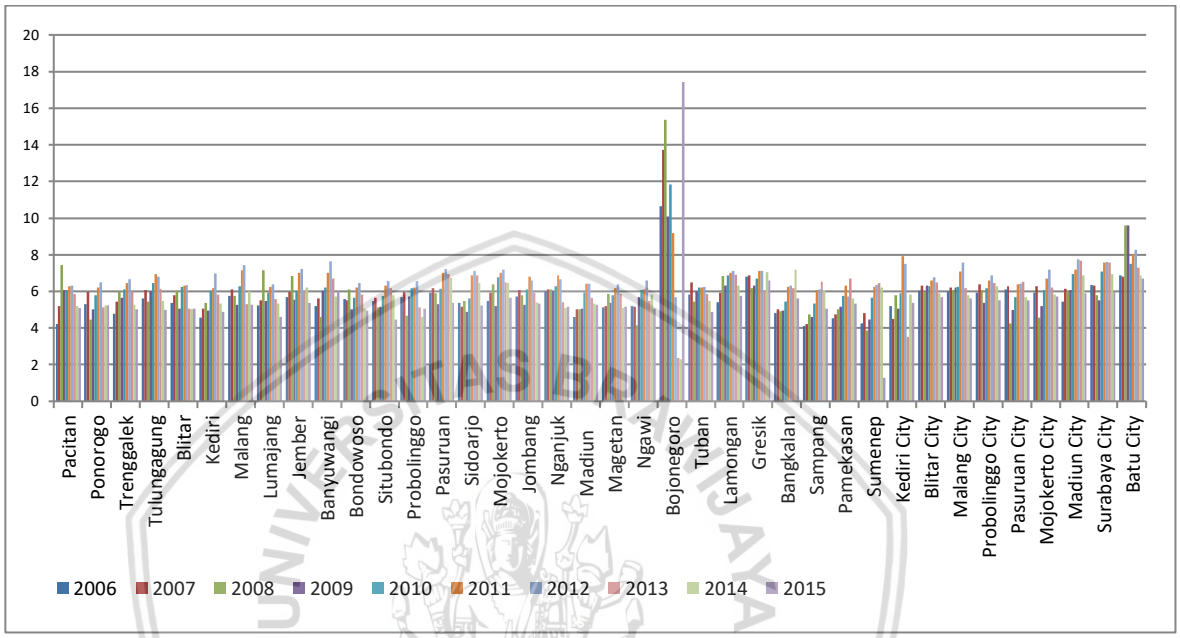
In figure 4.1, it indicates that the districts/cities which has the highest poverty rate in East Java province is Sampang with the average poverty rate for 30.59%. The region which has the lowest poverty rate in 2006-2015 is Malang City with the average poverty rate for 5.83% and Madiun City with the average poverty rate 5.95%.

1.1.3 Economic Growth

The economic growth is the important aspect in a region and concerned to provide a range of economic goods to its inhabitants. Economic growth is not enough to reduce the poverty, but it is a necessary. However, good economic

growth does not guarantee a decrease in poverty if it is not accompanied by equal income distribution.

Figure 4.2 The Data of Economic growth in 38 districts / cities in East Java Province in 2006-2015 (%)



Source: BPS (2018), Data processed

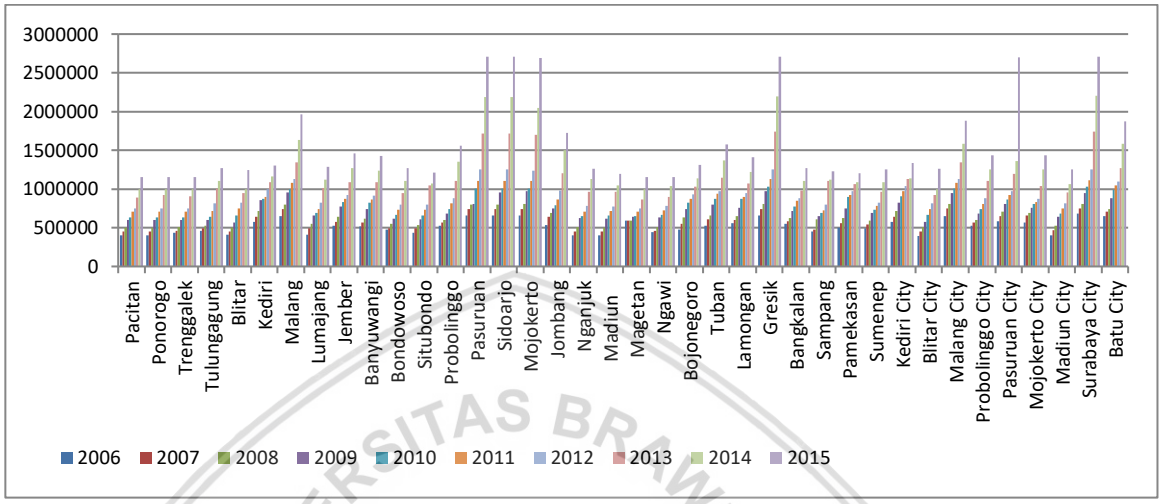
Figure 4.2 shows the economic growth of 38 districts/cities in East Java in 2006-2015. The economic growth is measured by increasing Gross Regional Domestic Product (GRDP) at constant prices in each districts/cities in East Java. Figure 4.2 shows that Bojonegoro has the highest economic growth rate with an average economic growth of 9.86%. The lowest economic growth is Sumenep with an average economic growth of 4.95%.

1.1.4 Minimum Wage

Minimum wage is an attempt to raise the level of low income population. Based on the Regulation of The Ministry of Labor Number 7 of 2013 Article 1, concerning the minimum wage explains that the minimum wage is the lowest monthly wage consisting of the basic wage including the fixed allowance established by the governor as the safety net. Figure 4.3 shows that in 2006-

2015, the minimum wage in 38 districts/cities in East Java can improve the welfare and encourage worker productivity.

Figure 4.3 The Data of Minimum Wage in 38 districts / cities in East Java Province in 2006-2015 (Rupiah)



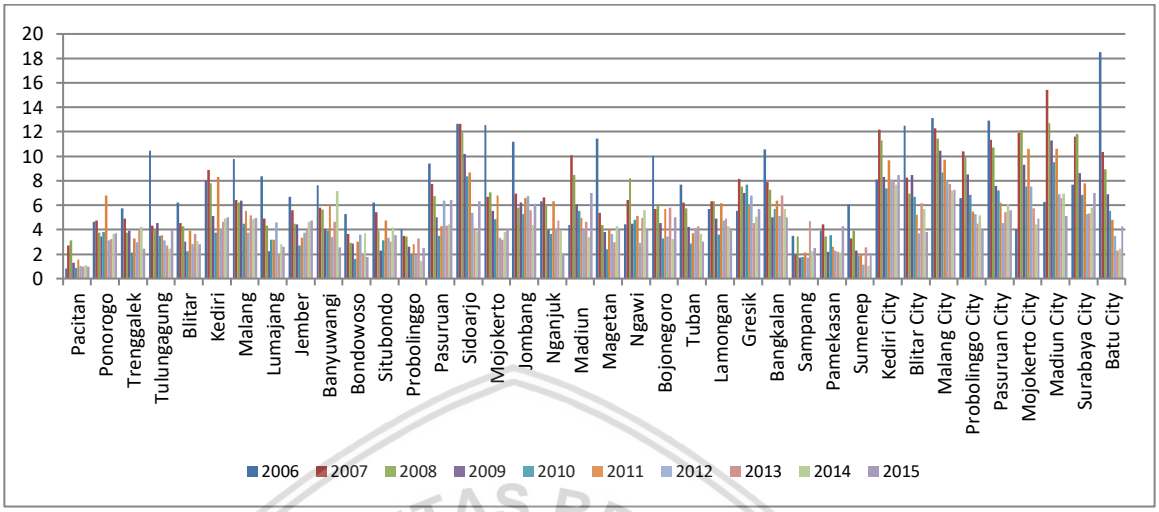
Source: BPS (2018), Data processed

Figure 4.3 shows that the highest minimum wage is owned by Surabaya city with the average minimum wage of Rp 1.323.850,00 because Surabaya city is the capital city of East Java province, where the cost of living is higher so that the minimum wage is also higher compared to another districts/cities. The lowest minimum wage is Pacitan with the average minimum wage of Rp 707.725,00.

1.1.5 Unemployment

According to the World Bank, unemployment is an individual classified in the labor force that actively seeks employment at a certain wage level, but cannot obtain the desired job. The magnitude of the unemployment rate is a reflection of the lack in success development in a country. Unemployment can affect the poverty rate in various ways (Khabibi, 2013). Unemployment is someone who is looking for a job at a certain level, but cannot obtain the desire job. The magnitude of the unemployment rate is a reflection from the lack of success of development in a country (Sukirno, 1999). Figure 4.4 shows the open unemployment rates in 38 districts/cities in East Java province.

Figure 4.4 The Data of unemployment rate in 38 districts / cities in East Java Province in 2006-2015 (%)



Source: BPS (2018), Data processed

Figure 4.4 shows that the unemployment rate in 38 districts/cities in East Java province in 2006-2015 is still high. The region with the highest unemployment rate is Kediri city with an average unemployment rate of 8.9%. The region with the lowest unemployment rate is Pacitan with the average of unemployment rate of 1.44%.

1.2 The Analysis of Panel Data Statistic

This study used the quantitative research using panel data analysis. The methods of analysis used the panel data analysis and used the Eviews 9 as data processing tool. The panel data analysis provides three analysis methods which can be used, based on the theory with some certain test. The panel data analyses are: *Common Effect Model* (CEM) or *Pooled Least Square* (PLS), *Fixed Effect Model* (FEM), and *Random Effect Model* (REM). The determination of panel data analysis model use the several test. The tests be used were: *Chow Test* to determine between *CEM* or *FEM*, and *Hausman Test* to determine between *FEM* or *REM*. The estimation process of *Chow Test* and *Hausman Test* in this research used Eviews 9.

1.2.1 Chow Test (Common Effect Model vs Fixed Effect Model)

Common Effect Model also known as the Pooled OLS Regression is the model which the estimation result is not too different with the regular OLS estimation result. The difference is only the amount of data. Common Effect model can be applied when the data and the estimation of regression without considering the cross section and time series data. Common Effect Model only brings the general estimation because the intercept and the slope have the constant value so the characteristic or the uniqueness of the panel data is not shown.

Table 4.1 Common Effect Model

Variable	Coefficient
Constanta	26.30***
	(1.63)
Economic Growth	-0.74***
	(0.24)
Minimum Wage	-7.27***
	(7.81)
Unemployment	-0.04
	0.04

Processed Data

Table 4.2 Fixed Effect Model

Variable	Coefficient
Constanta	23.43***
	(0.88))
Economic Growth	-0.40***
	(0.12)
Minimum Wage	-6.39***
	(3.84)
Unemployment	-0.04
	0.01

Processed Data

To determine the model between Common Effect Model and Fixed Effect Model, it used Chow test.

Hypothesis:

H_0: Common Effect Model (CEM)

H_1: Fixed Effect Model (FEM)

With the assumption:

Prob.(F-statistic) < α (α = 0.05) : reject H_0

Prob.(F-statistic) > (α = 0.05) : accept H_0

Table 4.3 The Result of Chow Test

Effects Test	Statistic	d.f	Prob.
Cross-section F	46.470369	(37,338)	0.0000

Processed Data

Based on table 4.3, the probability F valued for 0.0000 that shows the probability of F is significant because the p-value is less than α (α = 5%). Therefore, it concluded that H_0 is rejected and H_1 is accepted (using Fixed Effect Model).

1.2.2 Hausman Test (Fixed Effect Model vs Random Effect Model)

Hausman test is used to determine the model between the Fixed Effect Model (FEM) and Random Effect Model (REM).

Hypothesis:

H_0: Random Effect Model (REM)

H_1: Fixed Effect Model (FEM)

With the assumption:

Prob.(Chi-square statistic) < α (α = 0.05%) : reject H_0

Prob.(Chi-square statistic) > (α = 0.05%) : accept H_0

Table 4.4 Fixed Effect Model

Variable	Coefficient
Constanta	23.43*** (0.88))
Economic Growth	-0.40*** (0.12)
Minimum Wage	-6.39*** (3.84)
Unemployment	-0.04 0.01

Processed Data

Table 4.5 Random Effect Model

Variable	Coefficient
Constanta	23.54*** (1.29))
Economic Growth	-0.41*** (0.12)
Minimum Wage	-6.42*** (3.82)
Unemployment	-0.05 0.01

Processed Data

Table 4.6 The Result of Hausman Test

Test Summary	Chi-Sq Statistic	Chi-Sq. d.f	Prob.
Cross-section random	1.433874	3	0.00

Processed Data

Based on the table 4.6, the probability of Chi-square Statistic valued for 0.0000. It shows that the probability of Chi-square Statistic is significant because the p-value is less than α (α = 5%). Therefore, it concluded that H_0 is rejected and H_1 is accepted (using Fixed Effect Model).

4.3 The Results of Classical Assumption Test

4.3.1 Normality Test

The good model is the model which the residual follows normal distribution. The test that used is Jarque Bera test. The residual model is considered following the normal distribution if the significance test value is bigger than α (0.05%). Table 4.7 shows the result of Normality test using the Jarque Bera test.

Table 4.7 The Result of Normality Test

Jarque-Bera	69.26
Probability	0.00

Processed Data

Based on table 4.7, shows that the Jarque Bera Significance test value for 0.00, so it can be concluded that the data distributed normally and the assumption completed normally.

4.3.2 Autocorrelation Test

Autocorrelation test is used to determine whether the correlation between residual both in time and cross each other in linear regression model. Autocorrelation test can be performed using Durbin Watson (DW) test. The method to detect if there is serial correlation is by comparing the Durbin Watson (DW) value from the counting with the DW table value. The hypothesis from this test is:

H_0: there is no positive / negative autocorrelation

H_1: there is positive / negative autocorrelation

When the value of Durbin Watson model is bigger than the value of Durbin Watson table lower limit (dL), it means that there is positive autocorrelation problem (dw > dL). When the value of Durbin Watson is on the value (4 – Dl < dw <4), it means that there is negative autocorrelation problem. So, H_0 is rejected and H_1 is accepted.

When the value of Durbin Watson Model is on the value of (dU < dw < 4 – dU), it means that there is no negative / positive autocorrelation problem. So, H_0 is accepted and H_1 is rejected. The table 4.8 shows the estimation result which obtained using Eviews 9.

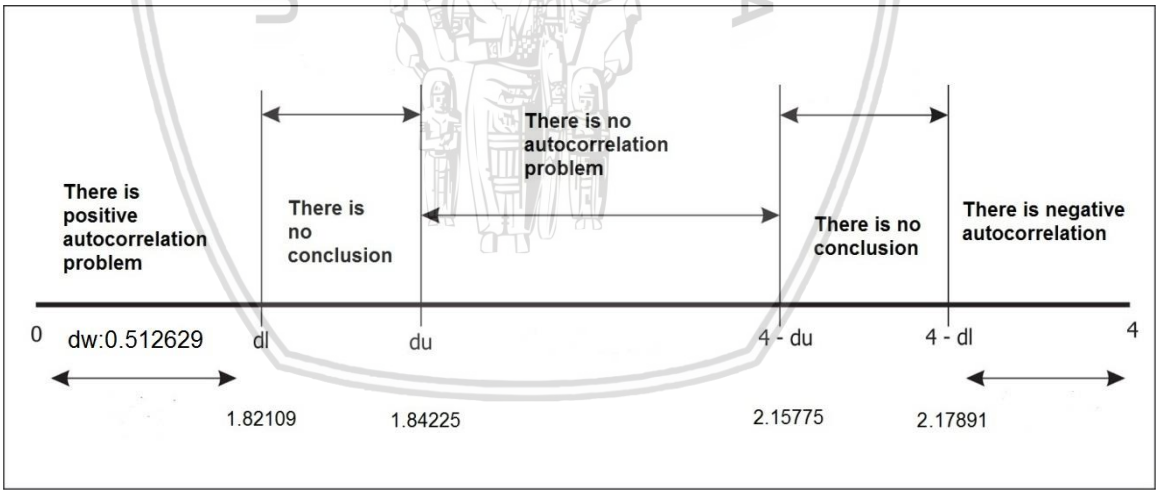
Table 4.8 The Value of Durbin-Watson with Eviews 9

R-squared	0.870152
Durbin-Watson stat	0.512629

Processed Data

In table 4.8, the value of Durbin-Watson (dw) statistic value is 0.931284. Based on the Durbin Watson table (Appendix 10) and α = 5% with n=380 and k (the amount of independent variable) = 3, the value of dL=1.82109 and dU=1.84225.

Figure 4.5 The Result of Autocorrelation test using Durbin-Watson test



Source: Durbin-Watson table (processed figure)

Description:

dL=1.82109 dU=1.84225 4- dU=2.15775 4- dL=2.17891

The value of dw (0.512629) is between 0 and dL, it means that H_0 is rejected and H_1 is accepted. So it concluded that there is positive autocorrelation problem. To correct the autocorrelation problem, it will carried out a Cochrane-Orcutt, will be carried out by determining the ρ correlation between several pairs

of observation in the model, then running the regression equation with AR(1) or until AR(2) to eliminate the correlation (Gujarati, 2004). The estimation result using e views are:

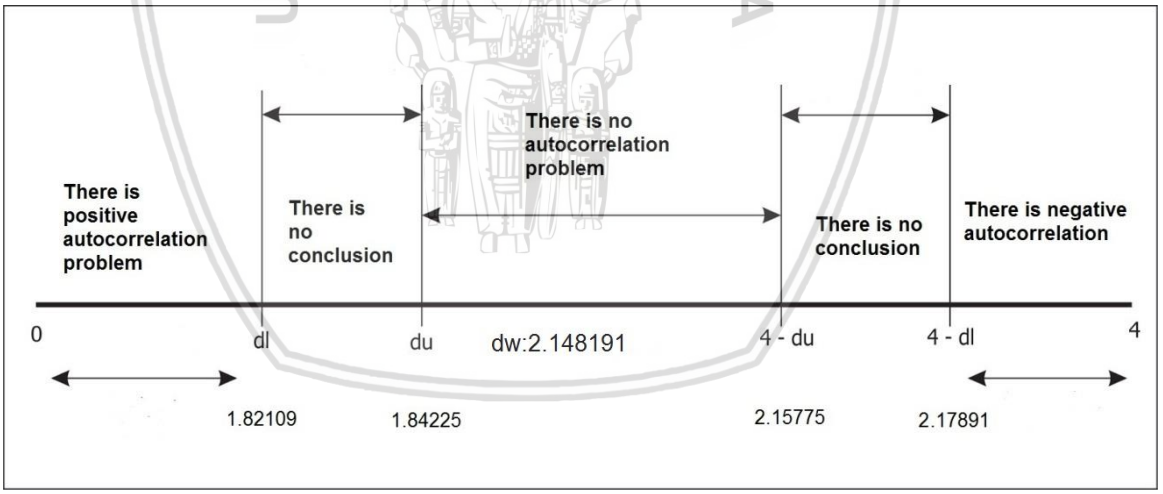
Table 4.9 The Value of Durbin-Watson using Cochrane-Orcutt

R-squared	0.954951
Durbin-Watson stat	2.148191

Processed Data

In table 4.9, after estimate using Cochrane-Orcutt, the value of Durbin-Watson (dw) statistic is 2.069230. Based on the Durbin Watson table (Appendix 9) and α = 5% with n=380 and k (the amount of independent variable) = 3, the value of dL=1.82109 and dU=1.84225.

Figure 4.6 The Result of Autocorrelation test using Durbin-Watson test after Cochrane-Orcutt



Source: Eviews 9 and Durbin-Watson table (processed figure)

The value of dw (2.148191) is between dU and 4-dU it means that H_0 is accepted and H_1 is rejected. So it concluded that there is no negative / positive autocorrelation problem.

4.3.3 Multicolinearity Test

Multicolinearity test is used to find out whether the model of linear regression equation correlates between the independent variables. To measure the occurrence of multicollinearity in the regression model, it can be seen from the correlation coefficient between each independent variable. If the coefficient of correlation is less than 0.80, the variable does not have multicolinearity problem.

Table 4.10 The value of correlation coefficient using Eviews 9

Model	X1	X2	X3
Correlation X1	1	0.05	0.04
X2	0.05	1	0.03
X3	0.04	0.03	1

Souce : BPS, 2018 (Processed Data)

Based on table 4.10, it shows that the correlation between independent variable on the model is less than the 0.80, and there is no multicollinearity in the model.

4.3.4 Heteroscedasticity Test

The heteroscedasticity test has purpose to test if the regression model occurs the various difference from residual of one observation to other one. The good regression model occurs if there is no heteroscedasticity. The test that used to test the occurrence of Heteroscedasticity in this model is Glejser test.

Table 4.11 The Result of Glejser test

Variable	Prob.
Economic Growth	0.4531
Minimum Wage	0.0507
Unemployment	0.5517

Processed data

Based on table 4.11, it shows that the probability of all independent variable is greater than α (5%). It means that there is no heteroscedasticity in the model.

4.4 The Statistic Test

4.4.1 Determination Coefficient R-square (R^2)

The determination coefficient R-square (R^2) measures how far the ability of model to explain the variation of dependent variable. The value of determination coefficient is zero and one. The small value of R^2 indicated that the ability of the independent variable to explain the variation of dependent variable is very limited. The value which is close to one means that the independent variable provides almost all the information needed to predict the dependent variable.

Table 4.12 The Value of R^2

R-squared	0.87

Source: BPS, 2018 (processed data)

Table 4.12 show the value of R^2 of 0.87. It stated that 87 % of the variation in poverty rates can be explained by the variation of the three independent variable, which are Economic Growth (X1), Minimum Wage (X2), and Unemployment (X3) and the remaining 13 % is explained by other variable outside the model.

4.4.2 The Significance of Parameter test (T-test)

The F-test is applied to recognize the influences of independent variables to the dependent variables completely. If the value of probability F counting is less than α (0.05%) so the independent variable in the model is influenced the dependent variable. Based on the estimation of Fixed Effect Model in this research (Table 4.12), the probability of Economic Growth (X1) is 0.0020 and Minimum Wage (X2) is 0.0000 that significantly influence Poverty Rate (Y). The Unemployment (X3) has probability 0.8048 that is not significantly influence the Poverty Rate (Y).

4.4.3 The Simultaneous Significance (F-test)

The F test is used to show whether all independent variables included in the model have the same effect on the dependent variable. In this model, the F-test is used to determine whether the economic growth variable, minimum wage, and unemployment rate simultaneously affect the dependent variable that is poverty rate.

Table 4.13 The Value of F-test

Prob (F-statistic)	0.000000

Source: BPS, 2018 (processed data)

Based on the table 4.13, the value of probability (F-statistic) is less than 0.05, it can be concluded that the three independent variables simultaneously can explain the dependent variable.

4.5 The Discussion

The estimation used in this analysis is Fixed Effect Model (FEM) that the result will be obtained from the factors that influence poverty including the Economic Growth (X1), Minimum Wage (X2), and Unemployment (X3) in the form as:

Variable	Coefficient
Economic Growth	-0.40*** (0.12)
Minimum Wage	-6.39*** (3.84)
Unemployment	-0.04 0.01

From table above, it can be seen that the Economic Growth (X1) has Constanta -0.40 with the probability 0.0000. It means that Economic Growth (X1) has a negative value and significantly influences poverty. Minimum Wage (X2)

has Constanta -6.39 with probability 0.0000, it means that Minimum Wage (X2) variable has a negative value and significantly influence the poverty rate. Unemployment (X3) has Constanta -0.04 with the probability 0.8048. It means that the Unemployment (X3) has a negative value and does not influence the poverty rate.

4.5.1 The Effects of Economic Growth on Poverty Rate

The economic growth variables show a negative sign as -0.4 and significantly influence poverty rate in 38 districts/cities in East Java. It means that there is a negative relationship between economic growth with poverty, which when there is an increasing in economic growth as 1 percent, can reduce the poverty rate as 0.40 %. The results are in accordance with the previous theories and research that became the theoretical basis in this study. These results in accordance with the Endogenous growth theory that states when the poverty line becomes a consideration, inflation becomes a relevant variable. If a household has income slightly above the poverty line, when the income growth is very slow and lower than the rate of inflation, then the goods and services that can be given will be less. The inflation rate will shift the poverty line upwards, and the combination of these will cause the household to fall in poverty line (Siregar & Wahyuniarti, 2008).

According to Kuznet in Tambunan (2001), the economic growth which has a strong correlation to poverty tends to increase but as it approaches the final stage there is a continued reduction of poverty levels. But the hypothesis from Kuznet is disputed by the existence of research which says that there is a positive correlation between economic growth and poverty (Deininger & Squire, 1995). Other research conducted by Ravallion (2001), which states that there is no correlation between economic growth and poverty. But both contrary studies actually strengthen the hypothesis through the inverted U curve. Kuznet states

that it is caused by the pattern of positive and negative relationship indicating the evolutionary process of income distribution from the transition of rural economy to an urban (industrial economy).

The same result is also supported by the latest research from Kaluge & Zuhdiyaty (2017), related to the Trickle Down Effect Theory that economic growth could be a driving force to generate wealth which would later trickle down to eradicate poverty and all the problems that accompanied it. Thus, it can be said that economic growth has a negative effect on poverty. The importance of accelerating the economic growth to reduce the number of poor people because the rapid economic growth will reduce the amount of poverty that is one of the indicators of successful regional development (Siregar and Wahyuniarti, 2008).

4.5.2 The Effects of Minimum Wage on Poverty Rate

The minimum wage variables show a negative sign as -6.39 and significantly influence poverty rate in 38 districts/cities in East Java. It means that there is a negative relationship between minimum wage with poverty, which when there is an increasing in minimum wage as 1 percent, can reduce the poverty rate as 6.39 %. The results are in accordance with the previous theories related to minimum wage policy curve stated that the minimum wage policy will increase the wage of employment in formal sector, but it will reduce the demand for labor. The excess supply of labor from formal sector will be absorbed in informal sector (Pratomo & Saputra, 2011). This theory is also supported by the previous research conducted by Febrianica (2015), stated that an annual increasing in minimum wage and rising above the level of equilibrium can have a negative impact on poverty, where the minimum wage increase will lead to an increase in labor supply and reductions in employment. An increase in labor supply that is not offset by employment will lead to an excess supply of labor and this will

increase the unemployment rate which may eventually worsen the poverty condition. From year to year, the number of worker in formal sector and the number absorbed in formal sector tend to increase. An increase in the number of jobs in formal sector causes more workers to get high wages. The minimum wages policy can increase the probability of people to not classified as a poor worker in Indonesia.

According to Mankiw (2003), the wages determine one of the factors that influence the unemployment rate and unemployment influence the poverty rate. In addition, the wages are also a compensation received by a unit of labor in the form of the amount of money paid to them. The other research from Kurniawati, Gunawan, and Indrasari (2017), also stated that an increase in minimum wages can reduce poverty because of minimum wages and increase income from workers that can help them get out of poverty when the workers are in poor category.

4.5.3 The Effects of Unemployment on Poverty Rate

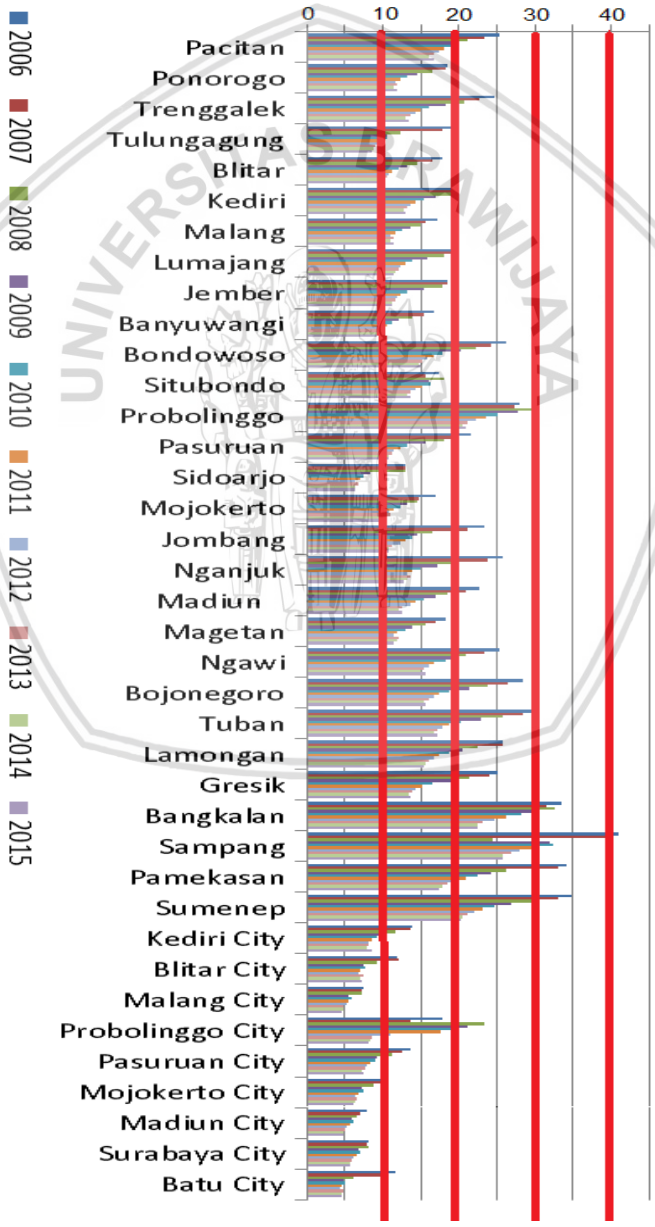
The unemployment variables not significantly influence poverty rate in 38 districts/cities in East Java. It caused by the unemployment that occurs in East Java is not coming from low or middle income people, but from everybody that has high income that does not fit with the available job and they prefer to waiting for get a better job. This result is in accordance with the previous research conducted by Endrayani & Dewi (2016) that stated not all unemployed people are poor. Those who are unemployed are still living by people who have enough income.

This research is not in accordance with the research conducted by Octavianii (2001), stated that if a society or the person is well or prosperous, but in the community there is also unemployed, unemployment will automatically reduce

the prosperity of a society which automatically also will affect the level of poverty. Some households in Indonesia have very large dependence to buy daily necessities.

The 38 district/cities in East Java Province is need to classify based on the rate of poverty. Figure shows the percentage of poverty rate in 38 district/cities during 2006-2015.

Figure 4.7 The Classification of Region based on Percentage of Poverty



Source: BPS, 2018 (Processed data)

Based on figure, it can be seen the percentage of poverty rate in districts/cities in East Java Province. Then, it can be classified the region based on the percentage of poverty rate into High poverty (>20%), Moderate Poverty (10-20%), and Low Poverty (<10%).

Table 4.14 The Classification of Region Based on Percentage Poverty

High (>20%)	Moderate (10-20%)	Low (<10%)
1. Sampang 2. Bangkalan 3. Sumenep 4. Probolinggo 5. Pamekasan 6. Tuban 7. Bojonegoro	1. Pacitan 2. Ponorogo 3. Trenggalek 4. Madiun 5. Magetan 6. Ngawi 7. Nganjuk 8. Jombang 9. Mojokerto 10. Lamongan 11. Gresik 12. Pasuruan City 13. Pasuruan 14. Sidoarjo 15. Malang 16. Blitar 17. Lumajang 18. Probolinggo City 19. Jember 20. Bondowoso 21. Situbondo 22. Banyuwangi	1. Batu City 2. Malang City 3. Surabaya City 4. Mojokerto City 5. Madiun City 6. Kediri City 7. Kediri 8. Blitar City 9. Tulungagung

This percentage of poverty in 38 districts/cities in Indonesia needs to compare with the estimation result based on constanta values in the estimation based on the chosen model which is Fixed Effect Model and classified it into three categories.

Table 4.15 The Classification of Poverty Rate based on Fixed Effect Model

No	Districts / Cities	Constanta
	High Poverty	
1	Sampang	14.32
2	Bangkalan	11.71
3	Sumenep	9.24
4	Probolinggo	9.14
5	Pamekasan	8.14
6	Tuban	6.53
	Moderate Poverty	
7	Bojonegoro	6
8	Gresik	5.4
9	Lamongan	4.37
10	Bondowoso	3.76
11	Pacitan	2.76
12	Ngawi	2.02
13	Pasuruan	1.9
14	Trenggalek	0.62
15	Nganjuk	0.58
16	Mojokerto	-0.01
17	Jombang	-0.1
18	Madiun	-0.55
19	Probolinggo	-0.56
20	Malang	-0.6
21	Situbondo	-0.97
22	Jember	-0.99
23	Lumajang	-1.24
24	Ponorogo	-2.6
25	Magetan	-2.66
26	Pasuruan City	-3.33
27	Banyuwangi	-3.55
28	Blitar	-3.75
29	Sidoarjo	-3.78
	Low Poverty	
30	Tulungagung	-4.45
31	Kediri City	-5.1
32	Kediri	-5.32
33	Surabaya City	-5.4
34	Batu City	-7.28
35	Mojokerto City	-7.58
36	Blitar City	-7.8
37	Malang City	-7.9
38	Madiun City	-9.97

Processed Data

Based on the Table, there is similarity between the compositions of percentage of poverty rate with the constanta in estimation result of Fixed Effect Model from Eviews 9. Then the three category of poverty level can be

categorized into several groups based on the location, regional potential, and similarity of economic activities (Table 4.16)

Table 4.16 Classification of Region based on Characteristic

Category	I	II	III
HIGH	1. Sampang 2. Sumenep 3. Pamekasan 4. Bangkalan	1. Bojonegoro 2. Tuban	1. Probolinggo
MODERATE	1. Pacitan 2. Ponorogo 3. Trenggalek 4. Madiun 5. Magetan 6. Ngawi 7. Nganjuk	1. Jombang 2. Mojokerto 3. Lamongan 4. Gresik 5. Pasuruan City 6. Pasuruan 7. Sidoarjo 8. Malang 9. Blitar	1. Lumajang 2. Probolinggo City 3. Jember 4. Bondowoso 5. Situbondo 6. Banyuwangi
LOW	1. Batu City 2. Malang City 3. Surabaya City 4. Mojokerto City	1. Madiun City 2. Kediri City 3. Kediri 4. Blitar City 5. Tulungagung	

- **High Poverty Rate**

The percentage of poor people that tend to high is in Sampang, Sumenep, Pamekasan, Bangkalan, Bojonegoro, Tuban, and Probolinggo. The region is stable in the poverty range 20% and can be interpreted that efforts to reduce poverty by each local government have not been effective. The high poverty rate in districts/cities of Group I is consist of Sampang, Sumenep, Bangkalan, and Pamekasan (Madura Island). This caused the lack of job availability. The characteristics of people in this area are work as the salt farmers with uncertain income. In addition, the phenomena of shrinking agricultural land led to reducing productivity of farmers because the amount of land where they are worked is reduced. The source of irrigation in agricultural land only based on rain water so during the dry season, the land becomes dry and unfertile. In the other hand, the bad weather will led the rainfall that make the salt productivity decrease because

the drying process takes more long time. Meanwhile, employment opportunities with good prospects on Madura still not been able to employ local people because of limited resources. Low human resources caused by the enrollment rates in Madura are low because they only graduated from elementary school, and the local government have not been able to provide the jobs because the investors still not been interested to invest in this region.

The high poverty rate in districts/cities of Group II is consist of Bojonegoro and Tuban. The high rate of poverty in Bojonegoro and Tuban is in contrast with phenomena of Bojonegoro as the largest oil producer in East Java and Tuban which has limestone producer that used for producer of Semen Gresik and Holcim. It happens because the available jobs still not been able to recruit the local people because inappropriate human resources. In managing the oil, gas, and limestone, competent human resources in accordance with the field of mining engineering graduated is required. While the people of Bojonegoro and Tuban prefers to study religion in Islamic Boarding school compared than in ining engineering. It causes the poverty rate in Bojonegoro and Tuban tend to high even the GRDP level is high.

The high poverty rate in districts/cities of Group III is consist of Probolinggo. The various potentials in Probolinggo include agriculture, animal husbandry, marine, and tourism which famous as the tourism forest of mount Bromo and its coastal beaches in the northern region which have not been able to reduce the number poor people in Probolinggo, it caused by the human development index covering the level of health, education, and the economic sector. The low level of education and health will have a negative influence on the quality of human resources in Probolinggo. In addition, the low number of investor in Probolinggo also caused the poverty in Probolinggo still not reduced.

- **Moderate Poverty Rate**

The percentage of poor people that in moderate level is in Pacitan, Ponorogo, Trenggalek, Madiun, Magetan, Ngawi, Nganjuk, Jombang, Mojokerto, Lamongan, Gresik, Pasuruan City, Pasuruan, Sidoarjo, Malang, Blitar, Lumajang, Probolinggo City, Jember, Bondowoso, Situbondo, and Banyuwangi. The region is stable in the poverty range of 10-20% and can be interpreted that efforts to reduce poverty by each local government is more effective, but it still need to improve to decrease the percentage of poverty rate. The moderate poverty rate in districts/cities of Group I is consist of Pacitan, Ponorogo, Trenggalek, Madiun, Magetan, Ngawi, and Nganjuk. In this region, the poverty rate is caused by the low level of income because the number of GDRP received by each district is not too large compared to other districts/cities in East Java. The poverty rate poverty rate is not too high compared to other cities which were previously caused by the lower unemployment. The education participation rate in this region is also higher compared to previous poverty category, because many people who study outside the city. Factors location that are close to student cities such as Surabaya, Malang, and other Province such as Yogyakarta and Central Java lead to access and give opportunities for them to get a better education in other cities. After the study period is complete, the return to their hometown and develop the potential possessed by the region in accordance with the knowledge they get in other cities.

The moderate poverty rate in districts/cities of Group II is consist of Jombang, Mojokerto, Lamongan, Gresik, Pasuruan City, Pasuruan, Sidoarjo, Malang, Kediri, and Blitar. In this area, the poverty rate is still quite high, but it is not as high in high category. Poverty still occurs because some people in this area still work as farmer and fisher. But there also more workers that work in

formal sector. The existence inequality causes the existence of poverty in this group.

The moderate poverty rate in districts/cities of Group III is consist of Lumajang, Probolinggo City, Jember, Bondowoso, Situbondo, and Banyuwangi. This region is located in the eastern part of East Java. The economic activity of the area is supported by the marine sector tourism in the form of beaches and ferry ports especially to the Bali Island from Banyuwangi. Poverty in this are still occurs because the low quality of human resources compared with Group I and Group II from this category. Because low human resources, it caused a lot of unemployment, so the income level also low.

- **Low Poverty Rate**

The percentage of poor people that in Low level is in Batu City, Malang City, Surabaya City, Mojokerto City, Madiun City, Blitar City, and Tulungagung. The region is stable in a low poverty range of 0-10% which means that the efforts from the government in reducing poverty are very effective as indicated by the low level of poverty compared to the previous category. The low category only divided into 2 groups, which are group I that consist of Batu City, Malang City, Surabaya City, and Mojokerto City. The low poverty level in this area is caused due to the better quality life and human resources. It indicated that there is many places in these cities to study and that produce graduates with a better quality. Beside study, there also training center to improve the skill of people in informal education. In addition, there also many jobs with a good prospects in this region. The activities of trade, tourism, and the wheels of government also well, so the poverty level is low.

The low poverty rate in districts/cities of Group II is consist of Madiun City, Kediri City, Blitar City, Tulungagung and Kediri. The differences in characteristics in this group are found in the type of job. The people in this region is working in

informal sector and the unemployment rate in this area are low which indicates that the people of this area are quite competent to work in the informal sector, such as they open a small business in their own house such as clothes sewing services, tire repairs, sell the food, so most of the people are employed because they has their own business and it will caused the poverty rate in this are tend to decreased.

CHAPTER V

CONCLUSION AND SUGGESTION

5.1 Conclusions

Based on the research on poverty level in 38 districts/cities in East Java province in 2006-2015, it can be concluded that economic growth and minimum wage has an impact in reducing the poverty in 38 districts/cities in East Java because the increase in economic growth and minimum wage followed by a decrease in poverty in 38 district/cities in East Java. The high economic growth will reduce the amount of poverty that is indicators of successful regional development and increasing in Minimum wage can reduce poverty because the minimum wage and increasing in income of workers that can help the people get out from poverty. While unemployment does not influence the poverty and indicates that not all unemployed people are poor or those who are unemployed are still living by people who have enough income.

1.2 Suggestion

Based on the research, the economic growth has a negative effect on poverty. This means that with a high level of economic growth, the poverty rate will also decline. In order to remain economic growth as a one factor for reducing the poverty rate, the economic growth should be oriented toward equal income distribution to avoid inequality. It is expected that there is a strong cooperation between the government and the community as an effort to reduce the poverty and inequality level between regions (north and south area) in East Java. This research also states that minimum wages have a negative effect on poverty. It means that an increasing minimum wage of districts/cities will reduce the poverty rate. Therefore, the minimum wage policy should be kept and the rate of wages should be maintained in accordance with the needs of decent living to protect the employment from the poverty.

Implement the policy to alleviate poverty based on the classification of region based on poverty rate. For High poverty region, the government of East Java can further promote the compulsory education program, it can be formal and informal education and provide the financial assistance for the poor, for example by giving the assistance for establishment of schools and training center in this region, so the level of education can increase and the quality of human resources in this region also can increase that will make the people immediately get jobs for those who are unemployed, and more competent in jobs for those who are not unemployed because in this region, the quality of human resources is being an important problem even though the economic growth in this region is high. The assistance is not only in terms of educational assistance, but also for social assistance for the poor and unproductive age such as give the Direct Cash Assistance, Family Planning Program, Poor Rice, Healthcare assistance, etc.

For the moderate poverty level region, it needs to improve the infrastructure to increase the efficiency and connectivity between regions and economic sectors in East Java, as well as improving the regional government to improve the efficiency of the budget for financing the infrastructure. For low poverty rate, the policy should be applied such as providing strengthening large scale industries and SMEs, and can open a new job vacancies in a region that still categorized in a high level of poverty to reduce the unemployment in that region and give the assistance to reach the equally income distribution between the region in 38 districts/cities in East Java Province.

REFERENCE

Adkins, Lee C. 2014. *Using Eviews For Principles of Econometrics*., Oklahoma City: Carter Hill.

Badan Pusat Statistik. 2007. *Produk Domestic Regional Bruto Jawa Timur 2002-2006.* Surabaya: Badan Pusat Statistik

Badan Pusat Statistik. 2012. *Produk Domestic Regional Bruto Jawa Timur 2007-2011.* Surabaya: BPS Provinsi Jawa Timur

Badan Pusat Statistik. 2015. *Klasifikasi Baku Lapangan Usaha Indonesia*. Jakarta

Badan Pusat Statistik. 2018. *Kemiskinan dan Ketimpangan*. https://www.bps.go.id/subject/23/kemiskinan-dan-ketimpangan.html. Accessed 16 July 2018.

Badan Pusat Statistik. 2018. *Tingkat Pengangguran Terbuka (TPT) Menurut Provinsi, 1986 – 2017*.https://www.bps.go.id/statictable/2014/09/15%2000:00:00/981/tingkat-pengangguran-terbuka-tpt-menurut-provinsi-1986---2017.html . Accessed 16 July 2018.

Banapon, Faizal. 2017. *Analisis Regresi Data Panel Pada Eviews.* http://www.sharingid.com/analisis-regresi-data-panel-pada-eviews-1/. Accessed 17 July 2018.

Boediono. (1999). *Teori Pertumbuhan Ekonomi*. Yogyakarta: BPFE.

Effendi, T. N. (1993). *No TitleSumber Daya Manusia, Peluang Kerja, dan Kemiskinan*. Yogyakarta: Tiara Wacana.

Febrianica, D. N. (2015). ANALISIS DAMPAK KEBIJAKAN UPAH MINIMUM TERHADAP KEMISKINAN DI INDONESIA. *Jurnal Ilmiah*.

Hasan, Iqbal. 2004. *Analisis Data Penelitian Dengan Statistik*. Jakarta: Bumi Aksara.

Hidayat, Anwar. 2017. *Tutorial Uji Asumsi Klasik Dengan Eviews*. https://www.statistikian.com/2017/02/tutorial-uji-asumsi-klasik-eviews.html. Accessed 17 July 2018

_____. 2017. *Cara Membaca Hasil Regresi Data Panel Dengan Eviews*. https://www.statistikian.com/2017/04/cara-membaca-hasil-regresi-data-panel.html. Accessed 17 July 2018

_____. 2017. *Tutorial Regresi Data Panel Dengan Eviews.* https://www.statistikian.com/2017/04/tutorial-regresi-data-panel-dengan-eviews.html. Accessed 17 July 2018

_____. 2017. *Tutorial Cara Input Data Panel Dengan Eviews* https://www.statistikian.com/2017/03/tutorial-cara-input-data-panel-dengan-eviews.html. Accessed 17 July 2018

Jundi, Musa Al. 2014. *Analisis Faktor Yang Mempengaruhi Tingkat Kemiskinan Provinsi – Provinsi Di Indonesia*. Skripsi. Tidak Diterbitkan. Fakultas Ekonomika dan Bisnis Universitas Diponegoro: Malang

Kaluge, David dan Noor Zouhdiyati. 2017. "Analisis Faktor – Faktor yang Mengpengaruhi Kemiskinan di Indonesia Selama Tima Tahun Terakhir (Studi Kasus Pada 33 Provinsi). JIBEKA Volume 11 Nomor 2 Februari 2017: 27-31.

Kaufman, Bruce E. and Julie L. Hotchkiss. 1999. The Economic Labor Markets. USA: Georgia State University.

Khabibi, Achmad. 2013. *Analisis Faktor-Faktor Yang Mempengaruhi Tingkat Kemiskinan (Studi Kasus 35 Kabupaten / Kota Di Provinsi Jawa Tengah Tahun 2011)*. Skripsi. Tidak Diterbitkan. Fakultas Ekonomi Universitas Sebelas Maret: Surakarta

Kaluge, D., & Zuhdiaty, N. (2017). KEMISKINAN DI INDONESIA SELAMA LIMA TAHUN TERAKHIR (Studi Kasus Pada 33 Provinsi). *JIBEKA Nomor 2 Februari 2017Nomor 2 Februari 2017*, *11*(Atalay), 27–31.

Khabibi, A. (2013). *Analisis Faktor-Faktor yang Mempegaruhi Kemiskinan (Studi Kasus 35 Kabupaten/Kota di Provinsi Jawa Tengah Tahun 2011)*. Sebelas Maret.

Kuncoro, M. (2000). *Ekonomi Pembangunan: Teor, Masalah dan Kebijakan*. Yogyakarta: UPP AMP YKPN.

N. Gregory Mankiw. (2010). *Macroeconomics* (7th ed.). New York: World Publisher.

Octaviani, D. (n.d.). Pengaruh inflasi dan pengangguran terhadap kemiskinan di perkotaan Indonesia, 110729.

Pratomo, D. S., & Saputra, P. M. (2011). KEBIJAKAN UPAH MINIMUM UNTUK PEREKONOMIAN YANG BERKEADILAN : TINJAUAN UUD 1945, 269–284.

Rahmi, I. A. (2016). *The Effects of Monimum Wage and Gross Regional Domestic Product (GRDP) on Employment in East Java Province*. Brawijaya.

Siregar, H., & Wahyuniarti, D. (n.d.). Dampak Pertumbuhan Ekonomi Terhadap Penurunan Jumlah Penduduk Miskin.

Sukirno, S. (2006). *Ekonomi Pembangunan: Proses, Masalah, dan Dasar Kebijakan*. Jakarta]: Prenada Media Group.

Suryawati, C. (2005). Memahami kemiskinan secara multidimensional. *Magister Masyarakat, Kesehatan Diponegoro, Universitas Tengah, Jawa*, *08*(03), 121–129.

Tambunan, T. (2001). *Transformasi Ekonomi di Indonesia: Teori dan Penemuan Empiris*. Jakarta: Salemba Empat.

Todaro, P. M. (2010). *Economics Development* (11th ed.). United States of America: Pearson Addison Weasly.

Wongdesmiwati. (2009). *Pertumbuhan Ekonomi dan Pengentasan Kemiskinan di Indonesia*. Jakarta.

Yulianto, T. (2005). *Fenomena Program-Program Pengentasan Kemiskinan di Kabupaten Klaten (Studi Kasus Desa Jotangan Kecamatan Bayat)*. Diponegoro

Suryawati, Chriswardani. 2005. "Memahami Kemiskinan Secara Multidimensional" Jurnal Manajemen Pembangunan dan Kebijakan. Volume 08, No. 03, Edisi September (121-129)

Tambunan, Tulus T.H. 2001. *Transformasi Ekonomi di Indonesia: Teori dan Penemuan Empiris.* Edisi Pertama. Jakarta: Salemba Empat.

Todaro, Michael P and Stephen C Smith. 2010. *Economic Development*. United States of America: Pearson Addison Weasly.

Wiguna, Van Indra. 2013. *Analisis Pengaruh PDRB, Pendidikan dan Pengangguran Terhadap Kemiskinan di Provinsi Jawa Tengah Tahun 2005 – 2010.* Jurnal Ilmiah. Fakultas Ekonomi dan Bisnis Universitas Brawijaya: Malang

Wijayanto, Ravi Dwi. 2010. *Analisis Pengaruh PDRB, Pendidikan, dan Pengangguran Terhadap Kemiskinan Di Kabupaten / Kota Jawa Tengah Tahun 2005-2008*. Skripsi. Tidak Diterbitkan. Fakultas Ekonomi Universitas Diponegoro: Semarang.

Wikipedia. 2018. *Jawa Timur*. https://id.wikipedia.org/wiki/Jawa_Timur. Accessed 17 July 2018

Wongdesmiwati, 2009. *Pertumbuhan Ekonomi Dan Pengentasan Kemiskinan Di Indonesia: Analisis Ekonometrika*

Yulianto, Trimo. 2005. *Fenomena Program – Program Pengentasan Kemiskinan di Kabupaten Klaten (Studi Kasus Desa Jotangan Kecamatan Bayat)*. Tesis. Tidak di Terbitkan. Program Studi Magister Teknik Pembangunan Wilayah dan Kota Universitas Diponegoro: Semarang.

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APPENDIX

Appendix 1: Common Effect Model

Dependent Variable: Y?
Method: Pooled Least Squares
Date: 11/14/18 Time: 00:17
Sample: 2006 2015
Included observations: 10
Cross-sections included: 38
Total pool (unbalanced) observations: 380

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	26.30720	1.633492	16.10489	0.0000
X1?	-0.741597	0.243323	-3.047795	0.0025
X2?	-7.27E-06	7.81E-07	-9.303475	0.0000
X3?	-0.004236	0.004423	-0.957698	0.3388

R-squared	0.209616	Mean dependent var	15.13842
Adjusted R-squared	0.203293	S.D. dependent var	6.995929
S.E. of regression	6.244456	Akaike info criterion	6.511763
Sum squared resid	14622.46	Schwarz criterion	6.553320
Log likelihood	-1229.979	Hannan-Quinn criter.	6.528255
F-statistic	33.15107	Durbin-Watson stat	0.101620
Prob(F-statistic)	0.000000		

Appendix 2: Fixed Effect Model

Dependent Variable: Y?
Method: Pooled Least Squares
Date: 11/14/18 Time: 00:19
Sample: 2006 2015
Included observations: 10
Cross-sections included: 38
Total pool (unbalanced) observations: 380

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	23.43310	0.882128	26.56428	0.0000
X1?	-0.404871	0.129780	-3.119670	0.0020
X2?	-6.39E-06	3.84E-07	-16.65867	0.0000
X3?	-0.000494	0.001999	-0.247311	0.8048
Fixed Effects (Cross)				
_PACITAN--C	2.768539			
_PONOROGO--C	-2.609704			
_TRENGGALEK--C	0.624050			
_TULUNGAGUNG--C	-4.458856			
_BLITAR--C	-3.752687			
_KEDIRI--C	-5.323592			
_MALANG--C	-0.678601			
_LUMAJANG--C	-1.240034			
_JEMBER--C	-0.999228			
_BANYUWANGI--C	-3.557517			
_BONDOWOSO--C	3.764731			
_SITUBONDO--C	-0.976970			
_PROBOLINGGO--C	9.148144			
_PASURUAN--C	1.909532			
_SIDOARJO--C	-3.787619			
_MOJOKERTO--C	-0.002628			
_JOMBANG--C	-0.103517			
_NGANJUK--C	0.586287			
_MADIUN--C	-0.555567			
_MAGETAN—C	-2.676581			
_NGAWI—C	2.020564			
_BOJONEGORO--C	6.000569			
_TUBAN—C	6.539547			
_LAMONGAN—C	4.376076			
_GRESIK—C	5.405613			
_BANGKALAN--C	11.71998			
_SAMPANG—C	14.32398			
_PAMEKASAN--C	8.140190			
_SUMENEP—C	9.243757			
_KEDIRICITY—C	-5.161206			
_BLITARCITY—C	-7.804371			
_MALANGCITY--C	-7.907347			
_PROBOLINGGOCITY —C	-0.569150			
_PASURUANCITY--C	-3.330707			
_MOJOKERTOCITY--C	-7.586424			
_MADIUNCITY--C	-9.977326			
_SURABAYACITY--C	-5.408448			
_BATUCITY—C	-7.289454			

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.870152	Mean dependent var	15.13842
Adjusted R-squared	0.854785	S.D. dependent var	6.995929
S.E. of regression	2.665941	Akaike info criterion	4.900859
Sum squared resid	2402.247	Schwarz criterion	5.326820
Log likelihood	-887.7129	Hannan-Quinn criter.	5.069899
F-statistic	56.62612	Durbin-Watson stat	0.512629
Prob(F-statistic)	0.000000		

Appendix 3: Result of Chow Test

Redundant Fixed Effects Tests
Pool: JATIM
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	46.470369	(37,338)	0.0000
Cross-section Chi-square	684.532446	37	0.0000

Cross-section fixed effects test equation:
Dependent Variable: Y?
Method: Panel Least Squares
Date: 11/14/18 Time: 00:21
Sample: 2006 2015
Included observations: 10
Cross-sections included: 38
Total pool (unbalanced) observations: 380

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	26.30720	1.633492	16.10489	0.0000
X1?	-0.741597	0.243323	-3.047795	0.0025
X2?	-7.27E-06	7.81E-07	-9.303475	0.0000
X3?	-0.004236	0.004423	-0.957698	0.3388

R-squared	0.209616	Mean dependent var	15.13842
Adjusted R-squared	0.203293	S.D. dependent var	6.995929
S.E. of regression	6.244456	Akaike info criterion	6.511763
Sum squared resid	14622.46	Schwarz criterion	6.553320
Log likelihood	-1229.979	Hannan-Quinn criter.	6.528255
F-statistic	33.15107	Durbin-Watson stat	0.101620
Prob(F-statistic)	0.000000		

Appendix 4: Random Effect Model

Dependent Variable: Y?
Method: Pooled EGLS (Cross-section random effects)
Date: 11/14/18 Time: 00:21
Sample: 2006 2015
Included observations: 10
Cross-sections included: 38
Total pool (unbalanced) observations: 379
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	23.54950	1.292874	18.21484	0.0000
X1?	-0.416379	0.129033	-3.226920	0.0014
X2?	-6.42E-06	3.82E-07	-16.78720	0.0000
X3?	-0.000593	0.001996	-0.296853	0.7667
Random Effects (Cross)				
_PACITAN--C	2.682585			
_PONOROGO--C	-2.589610			
_TRENGGALEK--C	0.581574			
_TULUNGAGUNG--C	-4.394041			
_BLITAR--C	-3.707180			
_KEDIRI--C	-5.242477			
_MALANG--C	-0.680181			
_LUMAJANG--C	-1.242988			
_JEMBER--C	-0.998793			
_BANYUWANGI--C	-3.506838			
_BONDOWOSO--C	3.660516			
_SITUBONDO--C	-0.986867			
_PROBOLINGGO--C	8.935302			
_PASURUAN--C	1.862765			
_SIDOARJO--C	-3.710195			
_MOJOKERTO--C	-0.010893			
_JOMBANG--C	-0.116473			
_NGANJUK--C	0.548208			
_MADIUN--C	-0.576443			
_MAGETAN--C	-2.652547			
_NGAWI--C	1.947943			
_BOJONEGORO--C	5.899200			
_TUBAN--C	6.384615			
_LAMONGAN--C	4.270498			
_GRESIK--C	5.293171			
_BANGKALAN--C	11.45494			
_SAMPANG--C	14.00019			
_PAMEKASAN--C	7.927442			
_SUMENEP--C	9.019616			
_KEDIRICITY--C	-5.081048			
_BLITARCITY--C	-7.669648			
_MALANGCITY--C	-7.759207			
_PROBOLINGGOCITY--C	-0.578540			
_PASURUANCITY--C	-3.276527			
_MOJOKERTOCITY--C	-7.454682			
_MADIUNCITY--C	-9.793492			
_SURABAYACITY--C	-5.301382			
_BATUCITY--C	-7.138514			

Effects Specification

		S.D.	Rho
Cross-section random		5.858585	0.8285
Idiosyncratic random		2.665941	0.1715
	Weighted Statistics		
R-squared	0.438363	Mean dependent var	2.160505
Adjusted R-squared	0.433870	S.D. dependent var	3.537093
S.E. of regression	2.660557	Sum squared resid	2654.462
F-statistic	97.56376	Durbin-Watson stat	0.465556
Prob(F-statistic)	0.000000		
	Unweighted Statistics		
R-squared	0.201877	Mean dependent var	15.13842
Sum squared resid	14765.64	Durbin-Watson stat	0.083694

Appendix 5: The Result of Hausman Test

Correlated Random Effects - Hausman Test
Pool: JATIM
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.433874	3	0.0000

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
X1?	-0.404871	-0.416379	0.000193	0.4079
X2?	-0.000006	-0.000006	0.000000	0.3901
X3?	-0.000494	-0.000593	0.000000	0.3360

Cross-section random effects test equation:
Dependent Variable: Y?
Method: Panel Least Squares
Date: 11/14/18 Time: 00:22
Sample: 2006 2015
Included observations: 10
Cross-sections included: 38
Total pool (unbalanced) observations: 380

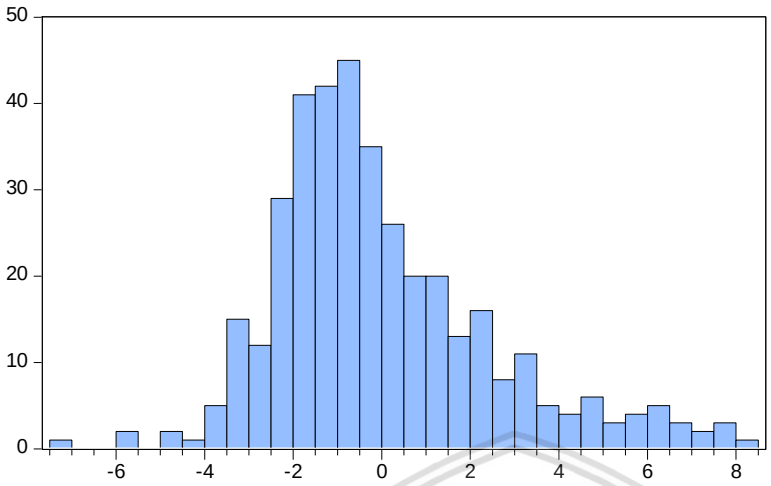
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	23.43310	0.882128	26.56428	0.0000
X1?	-0.404871	0.129780	-3.119670	0.0020
X2?	-6.39E-06	3.84E-07	-16.65867	0.0000
X3?	-0.000494	0.001999	-0.247311	0.8048

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.870152	Mean dependent var	15.13842
Adjusted R-squared	0.854785	S.D. dependent var	6.995929
S.E. of regression	2.665941	Akaike info criterion	4.900859
Sum squared resid	2402.247	Schwarz criterion	5.326820
Log likelihood	-887.7129	Hannan-Quinn criter.	5.069899
F-statistic	56.62612	Durbin-Watson stat	0.512629
Prob(F-statistic)	0.000000		

Appendix 6: Normality Test



Series: Standardized Residuals
Sample 2006 2015
Observations 380

Mean	-2.80e-17
Median	-0.536344
Maximum	8.432574
Minimum	-7.417210
Std. Dev.	2.510056
Skewness	0.907494
Kurtosis	4.039562
Jarque-Bera	69.26884
Probability	0.000000

Appendix 7: Autocorrelation Test using Cochrane-Orcutt

Dependent Variable: Y
Method: Panel Least Squares
Date: 11/15/18 Time: 18:38
Sample (adjusted): 2006 2015
Periods included: 10
Cross-sections included: 38
Total panel (balanced) observations: 380
Convergence achieved after 6 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.504510	2.493675	1.405359	0.1608
X1	-0.069424	0.063583	-1.091866	0.2757
X2	7.17E-07	5.73E-07	1.251448	0.2116
X3	-0.000173	0.000724	-0.238557	0.8116
AR(1)	0.911931	0.011298	80.71929	0.0000

R-squared	0.955480	Mean dependent var	14.63944
Adjusted R-squared	0.954951	S.D. dependent var	6.508406
S.E. of regression	1.381387	Akaike info criterion	3.498565
Sum squared resid	643.0737	Schwarz criterion	3.554630
Log likelihood	-593.2547	Hannan-Quinn criter.	3.520900
F-statistic	1808.149	Durbin-Watson stat	2.148191
Prob(F-statistic)	0.000000		

Inverted AR Roots	.91

Appendix 8: Multicollinearity Test

	X1	X2	X3
X1	1	0.087655	0.120772
X2	0.087655	1	-0.121763
X3	0.120772	-0.121763	1

Appendix 9: Heteroscedasticity Test

Dependent Variable: REABS
Method: Panel Least Squares
Date: 11/15/18 Time: 18:31
Sample: 2006 2015
Periods included: 10
Cross-sections included: 38
Total panel (balanced) observations: 380

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.841015	0.423417	4.347995	0.0000
X1	-0.047300	0.062978	-0.751048	0.4531
X2	4.03E-07	2.06E-07	1.960515	0.0507
X3	-0.000682	0.001145	-0.595749	0.5517

R-squared	0.012235	Mean dependent var	1.914438
Adjusted R-squared	0.004353	S.D. dependent var	1.620383
S.E. of regression	1.616852	Akaike info criterion	3.809310
Sum squared resid	982.9432	Schwarz criterion	3.850785
Log likelihood	-719.7689	Hannan-Quinn criter.	3.825767
F-statistic	1.552386	Durbin-Watson stat	0.718753
Prob(F-statistic)	0.200586		

Appendix 10: Critical Values for Durbin Watsons test (5% significance)

T=380 K=2 to 5

T	K	dL	Du
380	2	1.82639	1.83694
380	3	1.82109	1.84225
380	4	1.81577	1.84758
380	5	1.81043	1.85296

Source: http://www.statistikian.com (2018)